15 Cents a Copy

The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

Published Every Thursday TULSA, OKLAHOMA, NOVEMBER 18, 1926 $6.00 a Year

MADE OF KEYSTONE COPPER STEEL

The Home of the Original Bolted Steel Tank

MADE OF KEYSTONE COPPER STEEL

ADEQUATE DISTRIBUTING FACILITIES

We offer for your consideration a word about our Field Representatives and Distributors, who have in their yards and warehouses adequate stocks of our tanks of various sizes. They are equipped to render efficient service both in delivery and erection, also equipped to give wooden tank service. This field service is BACKED UP by our modernly equipped Plant, with 30,000 feet of floor space and with ample machinery and stocks of steel to meet the field requirements PROMPTLY. We devote our entire time to the exclusive manufacture of our Bolted Copper Steel Tanks.

Domestic Representatives:

NATIONAL SUPPLY CO., Denver, Colo.; Casper, Wyoming; Shelly, Mont., and Kevin, Mont.
PANHANDLE TANK CO., Amarillo, Panhandle, Pampa, and Spearman, Texas, and Artesia, N. M.
PANHANDLE REFG. CO., Wichita Falls and Olney, Texas.
H. B. BULLINGTON, Trent and McCamey, Texas.
C & S TANK CO., Luling, Texas.
PEER BOLTED STEEL TANK CO., Houston, Boling, Myrtle, Liberty, Sour Lake, Bruni, and Noleda, Texas, and West Lake, La.
IRA N. ELLIS, El Dorado and Smackover, Ark.
CHANUTE TANK CO., Chanute, Kansas.
J. FRANK PERDUE, Independence and Madison, Kansas.
M. R. TAYLOR, El Dorado, Kansas.
MALONEY SALES CORP., W. H. Elliott, Tulsa, Wewoka, Seminole, Okemah, Bristow, and Tonkawa, Oklahoma.

Foreign Representatives:

NATIONAL SUPPLY CO., Calgary, Canada.
ROSE LLOYD & CO., London.
J. Z. HORTER CO., Havana, Cuba.
NATIONAL SUPPLY CO., Tampico, Mex.
HUGHES & CO., New York.

Forwarding Representatives

SEVEN SEAS TRANSPORT MERC. CO., New York.
UNITED FRUIT STEAMSHIP CO., New Orleans.
PEER BOLTED STEEL TANK CO., Houston
MALONEY TANK CO., Los Angeles

MALONEY TANK MANUFACTURING COMPANY
Tulsa, Okla.

Howell Aluminum "3 in 1" Vacuum Pressure Valve and Thief Hatch—The BEST and LATEST Deck Equipment—POSITIVE Safety

Sizes: 12 to 3000 Barrels

Packed in Steel-Bound Crates for Export

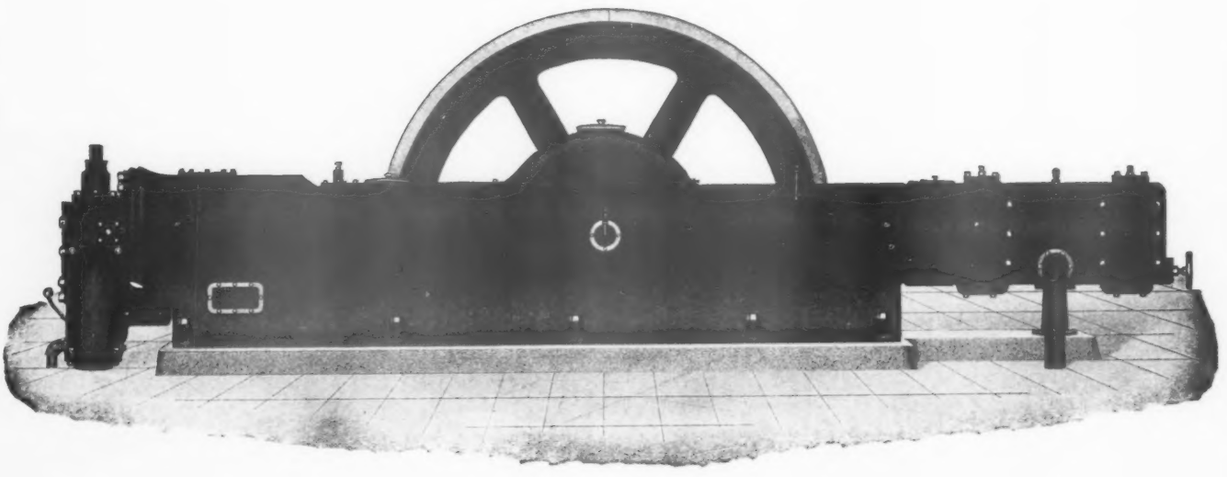
MALONEY

MALONEY PATENTED BOLTED COPPER-STEEL TANKS

MALONEY

Advertisers' Index on Page 33 Table of Contents on Page 34

You can gauge the dependability of any product by the amount of repeat business it attracts——



Repeat Business More than half of all Watts-Miller Gas Engine driven Gas and Air Compressor Units sold go to companies who have used them previously, and who consequently know all about their advantages. The Watts-Miller repeat order record is the gauge of Watts-Miller dependability.

Patented Features Each and every special Watts-Miller feature developed has been created to meet definite field operating requirements. Most of these special features have been patented, and are in use on Watts-Miller equipment exclusively.

The Miller Improved Gas Engine Company

Springfield, Ohio

Oklahoma Sales Office & Service Station
323 N. Cheyenne Ave., Tulsa, Okla.

California Sales Office
807 San Fernando Bldg., Los Angeles, Calif.

WATTS-MILLER

Novemb
3

37 Plants and 105 Warehouses spell protection

WHEN YOU order oxygen, you may come in contact only with the Linde district office and with the warehouse from which it is shipped. But you know that the oxygen will reach you without delay.

It does not matter whether the order is for a single cylinder or a carload. It makes no difference whether every customer in your district wants oxygen on that particular day. There are 37 Linde plants and 105 Linde warehouses in the country, a total of 142 sources of supply, and their resources can be mobilized quickly and easily at any point.

This means that your oxygen supply will never fail, even in times of severe stress.

THE LINDE AIR PRODUCTS COMPANY

Manufacturers of oxygen, nitrogen, pyrogen, argon and neon
Producers of helium for scientific purposes

General Offices: Carbide and Carbon Building
30 East 42d Street, New York

37 *Plants* · 105 *Warehouses*

HOW many times a single spot in an otherwise sound tank gives way! Perhaps it is a riveted seam or perhaps a flaw in the metal. There is a Linde Procedure Control which tells you how to repair such a break safely and economically. There are very few pieces of equipment that cannot be reconditioned economically by the oxy-acetylene process.

LINDE OXYGEN

Oil and Gas Journal, issued weekly by The Petroleum Publishing Company, 114-116 West Second Street, Tulsa, Oklahoma. Subscription price $6.00 a year; 15 cents a copy. Entered as second-class mail matter December 16, 1911, at the postoffice at Tulsa, Okla., under the Act of March 3, 1879.

Because of the *confusion* of many brands of Babbitt—

THE confusion of many brands and names of babbitts makes a mystery of a simple problem—choosing the right babbitt for a given bearing.

There is nothing mysterious about the manufacture of babbitts. Certain definite requirements must be met exactly, requirements that are known and studied by our Research Engineers. And to insure uniformity of performance, babbitts should be made of pure virgin metals, manufactured with scientific accuracy for specific uses.

Experienced users have found that they save money and effort, avoiding the confusion of many brands, by standardizing on Eagle Babbitts.

Engineers of the Eagle Babbitt Service, after years of exhaustive research into the bearing needs of every industry, have produced three Eagle Babbitts that fill 95% of all bearing metal requirements: Eagle Dreadnaught *High Speed* for highest speed and heavy pressure duty; Eagle Outlasta *General Service* for average or even speed and pressure; and Eagle Standard Number Four.

The Eagle Babbitt Service, without obligation to you, will make a thorough study of your bearing needs and recommend the metal best suited to each particular function. Write for information about this money-saving service.

The EAGLE-PICHER LEAD COMPANY
Chicago · Joplin · Cincinnati

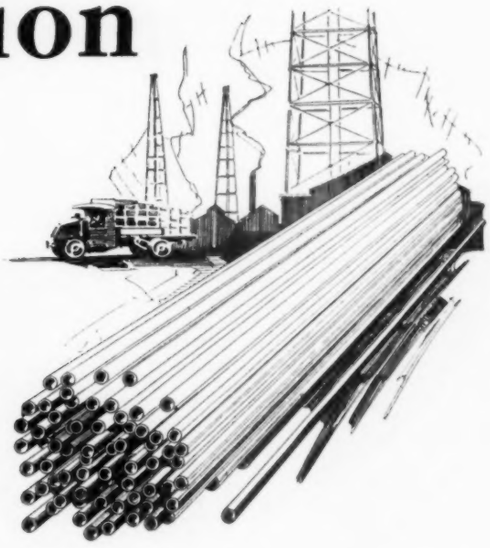
EAGLE BABBITT SERVICE

Notice to Dealers:

Have you heard about "Pigs of Lead," the new motion picture which portrays every process in the manufacture of lead products? Write Eagle-Picher for complete information of how you can use this film to increase your sales.

Producers of lead and allied products · Eleven Plants · Branches in all principal cities

The Value of Threads to Transportation



FROM the time the drill breaks ground under the oil derrick until the gasoline is run into the tanks at the service station, piping is the chief factor in the processing of crude petroleum to "gas."

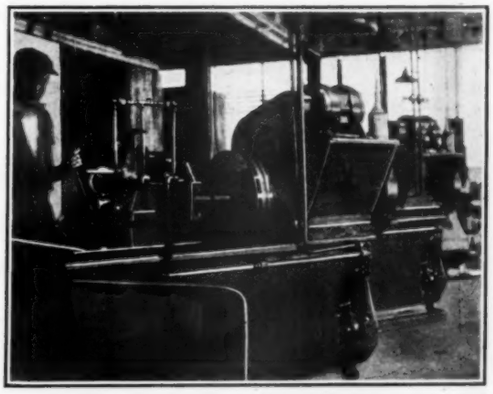
And good threads put the value into piping.

The Gulf Refining Company, of Port Arthur, Texas, employ six LANDIS Pipe Threading Machines to insure the output of their pipe shops.

The battery consists of two 2-in., one 4-in., one 8-in. and two 12-in. units.

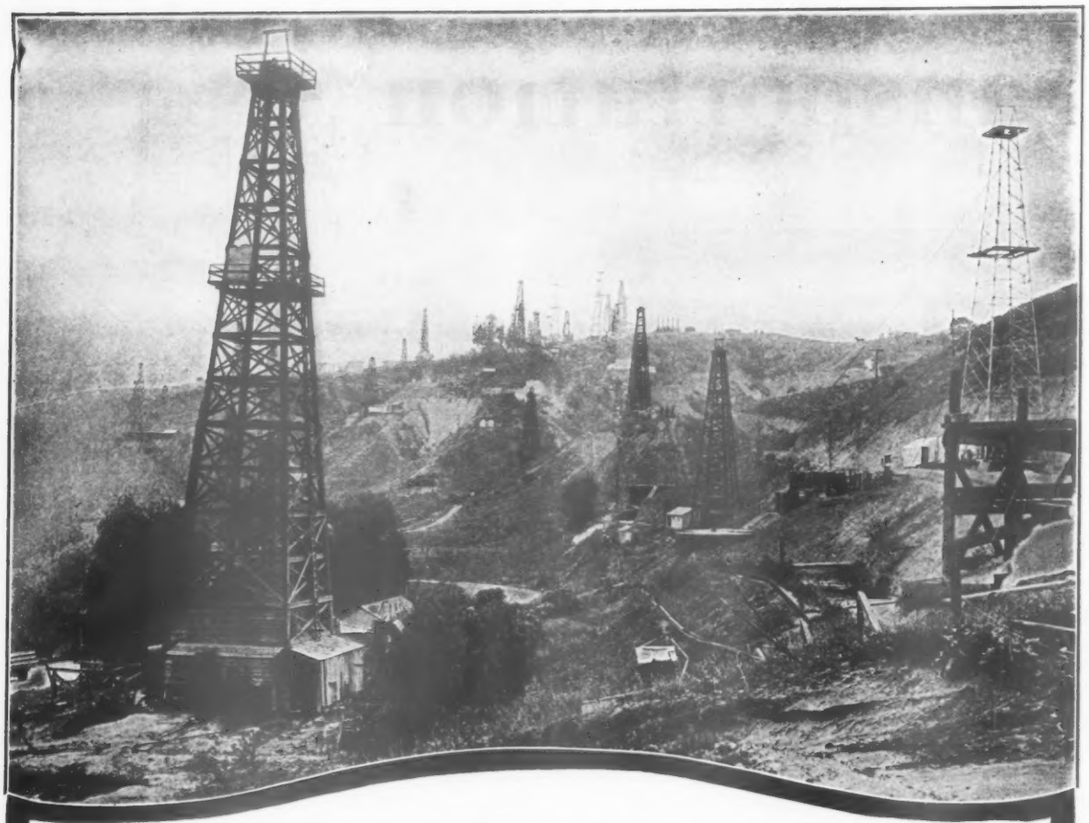
These LANDIS Machines have no difficulty in supplying the miles of varied piping that makes for economical transportation via "That Good Gulf Gasoline." LANDIS Pipe Threading Machines are used the world over; they cut clean, true threads with minimum regrinding; and can be hard driven when production is important.

Isn't it good policy to take a leaf from the success book of the big producers?



LANDIS MACHINE COMPANY, Inc., Waynesboro, Pa., U. S. A.

DOMESTIC AGENTS: Marshall & Huschart Machinery Co., Chicago, Ill.; Marshall & Huschart Machinery Co. of Indiana, Indianapolis, Ind.; Colcord-Wright Machinery & Supply Co., St. Louis, Mo.; R. B. Whitacre & Co., St. Paul, Minn.; Hamilton Machinery Company, Chattanooga, Tenn.; Seeger Machine Tool Co., Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; Woodward, Wight & Co., New Orleans, La.; Jos. T. Ryerson & Sons, Houston, Texas; Hendrie & Bolthoff Mfg. & Supply Co., Denver, Colo.; Salt Lake Hardware Co., Salt Lake City, Utah; Herberts Machinery & Supply Co., San Francisco and Los Angeles, Calif.; Harry M. Euler Co., Portland, Ore.; Hallidie Machy. Co., Seattle, Wash.; Hallidie Co., Spokane, Wash.; R. S. Armstrong & Bro Co., Atlanta, Ga.



WILLIAMSPORT

Telfax Tape marked, Factory Certified

WIRE LINES

are giving a good account of themselves in the Union Oil Co.'s drilling operations in the Brea Canyon

AND again we are glad to give fullest credit to the Drillers who KNOW HOW to handle Wire Lines. It takes a *good* line to stand the racket in Drilling Operations—You know this, but much more—if a man is careless with a line—the best line in the world cannot stand up.

Drillers of this caliber are adopting every precaution in their work. The chance of getting a line of the wrong grade on a job is too great for them to continue accepting tags or reel marking on their line.

The good name of any manufacturer is not a guarantee against mistakes.

Write today for some interesting wire rope data.

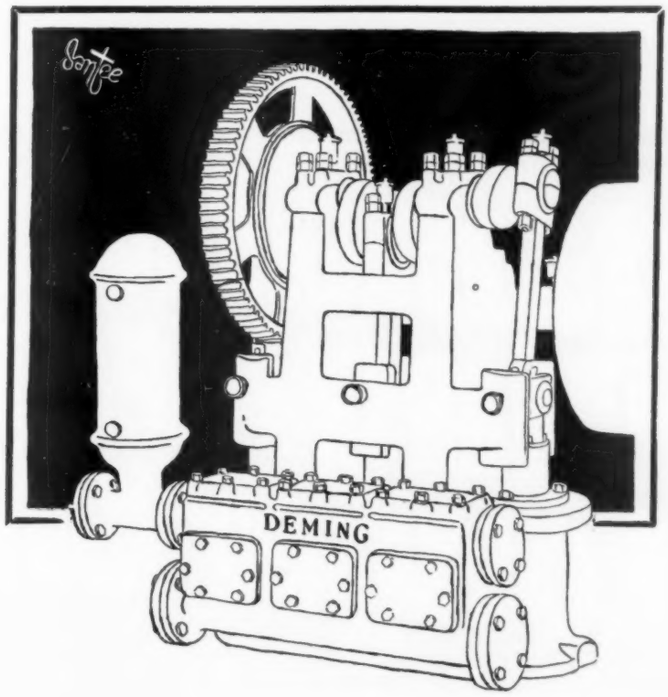
WILLIAMSPORT WIRE ROPE COMPANY

Main Office and Works: Williamsport, Pa.

General Sales Offices: 122 S. Michigan Ave., Chicago, Ill.

Oil Country Sales Offices: Williamsport Bldg., 4th and Midland Valley Tracks, Tulsa, Okla.

Distributors: Houston Mildred Shidler Blackwell Ardmore Holdenville Bristow Wichita Falls Bartlesville Smackover Arkansas City Cromwell Shreveport Casper Lewistown Electra



Long Life—Continuous Service

A heavy duty, slow acting Deming Triplex Pump will handle your heavy pumping with the minimum of wear and tear over a longer period of time than any other type of pump.

Built in a wide range of sizes to handle any pumping condition, there's a Deming type to suit your problem.

And for economy, efficiency, absence of trouble and consistent performance, you will find Deming Triplex Pumps ideally suited to your every need.

Ask for our Deming catalogue.

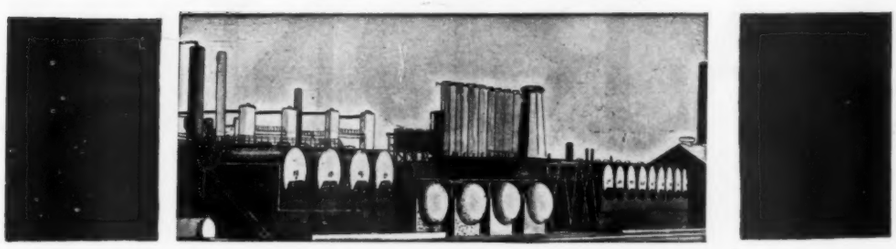
THE DEMING COMPANY
SALEM, OHIO

Distributed to the Oil Industry by

SMITH SEPARATOR COMPANY
Tulsa *Okla.*

924 Post-Dispatch Bldg.,
HOUSTON, TEXAS

1414 F. & M. Bank Bldg.,
FORT WORTH, TEXAS



Automatic Oiling Means Longer Life!

Perfect Lubrication for EVERY BEARING

GARDNER Enclosed Self-Lubricated Power Pumps give many extra years of service because of superior lubrication of all working or wearing parts.

No oil cups—no grease cups. Just fill crankcase and forget it for a month.

Send for Bulletin EP-4

"Quality Builders for Over 65 Years"

THE GARDNER GOVERNOR COMPANY
Quincy, Illinois

CHICAGO
549 Washington Blvd.

NEW YORK
534 Singer Bldg.

PHILADELPHIA
604 Arch St.

MUSKOGEE
323 Dayton St.

SHREVEPORT
561 Rutherford St.

HOUSTON
611 2nd Nat'l Bk. Bldg.

SAN FRANCISCO
401 Rialto Bldg.

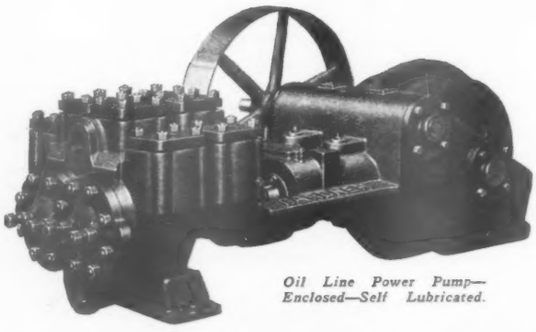
LOS ANGELES
684 Santa Fe Ave.

LONDON
25 Bishopsgate, E. C. 2

OIL COUNTRY DISTRIBUTORS:

Alamo Iron Works, San Antonio, Texas
Atlas Supply Co., Muskogee, Tulsa and Fort Worth
Kirk W. Eichelberger, 401 Rialto Bldg., San Francisco
Emsco Derrick & Equipment Co., 6811 S. Alameda, Los Angeles
Haywood-Williamson, Shreveport and El Dorado
F. W. Heitmann Co., Houston
International Supply Co., Stores in Principal Mid-Continent Fields
Norvell-Wilder Hardware Co., Houston, Beaumont, and Fort Worth
Republic Supply Company of Calif., Los Angeles

Packed Piston Pump —Self Lubricated— Motor mounted on frame.



Oil Line Power Pump— Enclosed—Self Lubricated.

GARDNER

Nye Saunders Pipe Cutters

No. 1	$ 1.80	net
No. 2	2.70	"
No. 3	6.60	"
No. 4	10.80	"
No. 5	16.80	"

NYE—*The Die Man*

Pipe Tool Maker to the American Plumber and Steamfitter

Nye Barnes Pipe Cutters

No. 1	$ 2.25	net
No. 2	3.00	"
No. 3	5.00	"
No. 4	10.00	"
No. 5	15.00	"
No. 6	20.00	"

A Short Article on Short Skirts

There is considerable argument now whether a skirt should be cut above the knees or not. Some say it should be cut just above the knees and some say just below the hips. It is all a matter of opinion, and other things.

When a woman gets a dress made now-a-days it always looks as though she had run out of material. Or jumped out. You would think that American skirts were made of the American flag. They never let them touch the ground.

In the old days a heroine used to sweep grandly down the stairs. Now she doesn't sweep anything but the top step. The nights may be getting shorter, but they don't seem to have very much effect on the ladies' skirts.

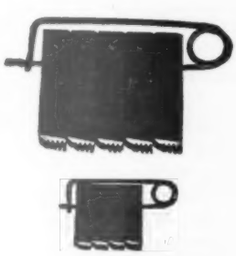
But the ladies have the right idea, especially for the plumbing business. You want to make a short cut of things. You don't want to waste any time or any material. It is the same way about cutting pipe.

Just like the ladies, Nye Dies are attracting more attention than they ever did before. They make short work of a pipe, and that means a lot when you are short of time or you are short of help.

Nye Tools are a short cut to a finished job. They shorten labor, and shorten the cost of doing business. In a short time plumbers will refuse to use any other. That is the long and short of it.

HARRY G. NYE
(Otherwise)
THE NYE TOOL & MACHINE WORKS
Manufacturers of High Grade Pipe Tools
4120-4130 Fullerton Avenue
CHICAGO, ILLINOIS

Nye thin blade cutter wheel, made to fit all standard makes of pipe cutters, and guaranteed against breakage in use. Made both in smooth and knurled edge.



Nye Toledo Type Chasers

Also fits Nos. 1 and 2 Toledo Type Die Stocks.

Each set is guaranteed in every particular. Will cut much easier than other similar dies.

No. 1, 1" to 1½"	$ .75 per set net
No. 1, 2"	1.25 per set net
No. 2, 2½" to 4"	3.60 per set net

New Type Self-Locking Vises

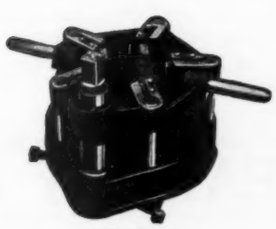
No. 00	$2.82	net
No. 10	3.34	net
No. 20	5.00	net
No. 30	7.33	net

Nye NewStyle Chain Vice

Wedge and saddle made in one unit so that parts cannot be lost. Vise complete with 40-in. chain ..... $6.18 net

The No. 1A is the same as the No. 1 except that it is equipped with a ratchet for work where space is restricted.

No. 1A Nye Toledo Type Pipe Threader, complete ..... $12.00 net
West of Rocky Mountains $13.50



NYE NO. 2
(Toledo Type)
GEARED THREADING DEVICE
Improved

Capacity 2½ in. to 4 in. inclusive.
Net price complete $50.00
West of Rocky Mountains 55.00
FREE TRIAL—ABSOLUTELY GUARANTEED

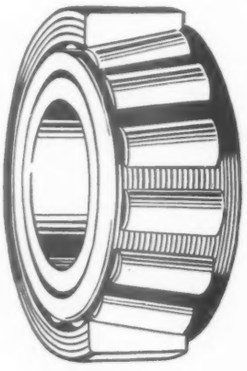
The rugged construction and few working parts account for the simplicity and durability of these Nye Toledo Type models. They do the work easily and efficiently.

No. 1 Nye Toledo Type Threader, complete ..... $9.60 net
West of Rocky Mountains $10.80

In his own interest

one of the most highly-reputed manufacturers of machine tools published the advertisement reproduced below. His statements are typical of the best thought today, among makers and users of Timken-equipped machinery of every type, for every purpose.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO



Why we adopted Timkens

KEARNEY & TRECKER'S latest and largest milling machine — the New No. 4 — is equipped with Timken Roller Bearings.

This is not in answer to a popular appeal, nor to add another "talking point". Kearney & Trecker milling machines are not designed that way. Every improvement or new feature must stand the test of rigid experiment, otherwise it is never adopted.

In October 1921 we first put Timken Roller bearings into a milling machine. That pioneer machine has been running day in and day out in our own shop ever since. For five years it has been submitted to all manner of service far more severe than would ever be encountered in normal operation.

Exhaustive experiments have borne out the fact that anti-friction bearings provide (1) Greater load carrying capacity (2) Increased mechanical efficiency and (3) Longer life. Not only that, the reduction in overhanging loads and clearances required, all make for greater rigidity of drive.

Anti-friction bearings have earned their way into Kearney & Trecker milling machines by sheer merit. In our judgment, they accomplish the greatest usefulness in the bigger sizes of machines where it is necessary to transmit a large amount of power.

That is "why we adopted Timkens" in our new No. 4.

MILWAUKEE MILLING MACHINES

KEARNEY & TRECKER

MAIN OFFICE AND WORKS: MILWAUKEE, WISCONSIN

Your Pumping Costs Can Be Reduced With "U.S." Hi-heat Steam Hose—

Read This Letter From a Well-Known Oil Company

"Since using 'U.S.' Hi-heat Steam Hose we have kept an accurate record of our pumping costs. Formerly it took 5 hours to pump out a barge. The same barge can now be pumped out in 4½ hours—a saving of 10% in time. Steam charges to a towing company were $15.00 per hour—so here was a saving of $7.50 cash. The barge itself is valued at $2,000.00 per month, which, on the eight-hour basis, means a saving of $4.00 per half hour. Thus we have saved a total of $11.50 per cargo. We previously used in this service regular metallic steam hose. We credit our saving to the fact that 'U.S.' Hi-heat Steam Hose produces a higher pressure at the pump due to no loss from radiation."

This is just one example of "U.S." Hose superiority.

There's a Complete Line of "U.S." Hose to Cover Every Oil Industry Operation—

From the earliest days of the oil industry the oil field and oil refinery specialists of the United States Rubber Company have closely studied the operating problems of petroleum production, refining and handling.

Particular attention has been given to the development of a complete line of "U.S." Hose for every requirement.

This line ranges from the famous "U.S." Rotary Drilling Hose, and heavy armored hose for sea loading and all 'round suction and discharge service to the lighter types for barrel filling, tank car and tank wagon.

"U.S." 48-10 Air Hose is well known in every industrial field. The same is true of "U.S." Steam, Water, Fire and Welding Hose.

The "U.S." Line of Mechanical Rubber Goods includes a type of belting, packing, and hose to meet every need. Our oil field branches are ready to serve you. The trade mark and guarantee of the largest manufacturer of rubber products in the world protects you.

Trade US *Mark*

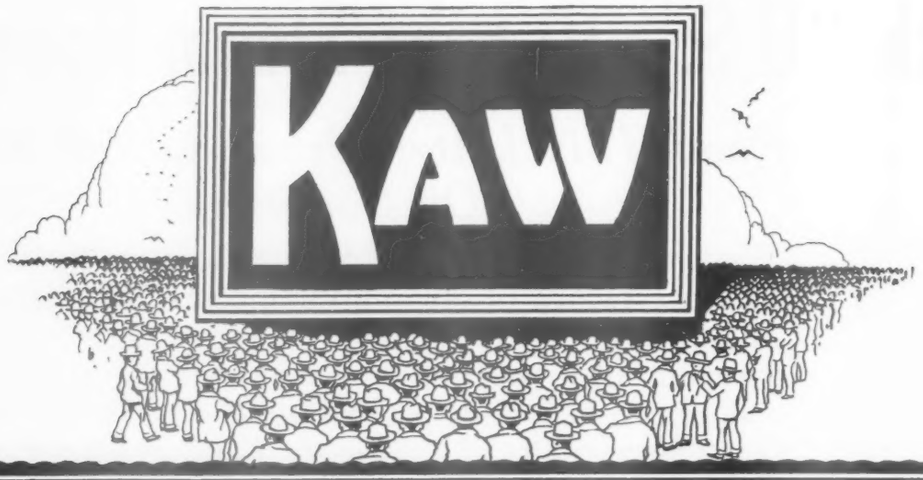
United States Rubber Company

1790 Broadway **New York City**

OIL FIELD SALES BRANCHES:

TULSA, OKLA.	PITTSBURGH, PA.	KANSAS CITY, MO.
HOUSTON, TEXAS	NEW ORLEANS, LA.	CHICAGO, ILL.
DALLAS, TEXAS	LOS ANGELES, CAL.	MEMPHIS, TENN.
ST. LOUIS, MO.	COLUMBUS, OHIO	

"U.S." Mechanical Rubber Goods For Every Oil Industry Need



To the Refinery Men of the Mid Continent Field

You men who know the old Mid-Continent Field as you know your own back yard—you fellows know that much of the refinery equipment used in the Mid-Continent Field is built and sold by KAW. But do you know why?

Back of the quality of every manufactured thing, you must look for the ability, skill and sincerity of the organization that produces it.

We know all the "tough" tests refinery equipment has to go through. We recognize our responsibility in constantly guarding the quality of KAW products in every step of its manufacture. And back of KAW-built products there is something besides men, material and machinery—there is a never-ceasing determination to give every one of you fellows the best possible equipment that can be produced. We want to feel that every time we sell a refinery man, we have made a friend for life. We have already gained hundreds of such friends so the principle seems to work.

Remember, whatever you fellows down there want in the way of refinery equipment—standard products or special specification jobs—we are always ready to see that you get the best that can be built, and "shoot" it to you quick. So don't hesitate about calling on us—because we're glad to save you money any old time.

THE SUPERSTRENGTH IS BUILT IN

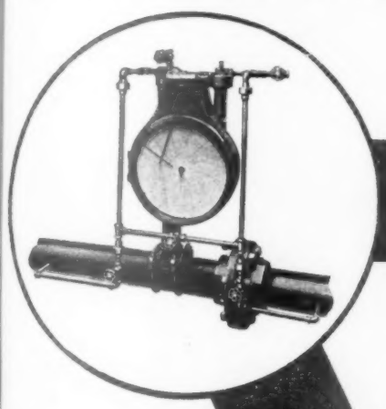
THE KAW STEEL CONSTRUCTION CO.

General Office and Plant

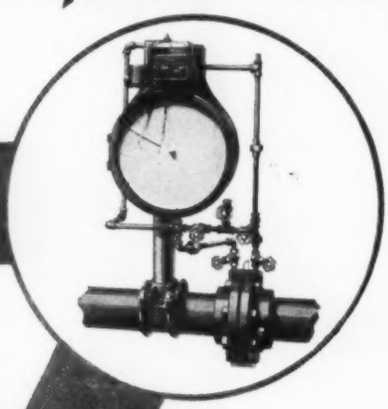
1st and Walker Ave. Kansas City, Kansas

Branch Office: 715 Clinton Bldg., Tulsa, Okla.

Obtain the Height of ACCURACY *and* PRECISION in Measuring Gases and Liquids with METRIC orifice METERS



Metric Orifice Meter Installation for Light Oils or Water—2½ and 3-inch Pipe Diameter Connections.



Metric Orifice Meter Installation for Gas—Flange Connections.

They put SURE in meaSUREment because of these unexcelled characteristics and advantages:

Small area of surface affected by friction.

Minimum number of moving parts.

Small angle of movement of pen.

Correct length of lever arm.

Uniform area of mercury pots.

Large area of float.

Only one chart.

Oil

With a total weight of less than 40 pounds and with all parts of a size to be installed and handled with small wrenches or pliers, this little Metric is taken everywhere into the oil fields and installed in a great variety of ways to do all types of measuring work of all grades of oil—accurately, dependably.

Gas

These meters meet all demands in gas measurement from casing head to vacuum line, from production to consumption and at every station in between,—with a precision in operation that approximates perfection. Throughout the range of service variations they give results that are extremely accurate.

Measure with Metrics

Metrics mean MeaSUREment

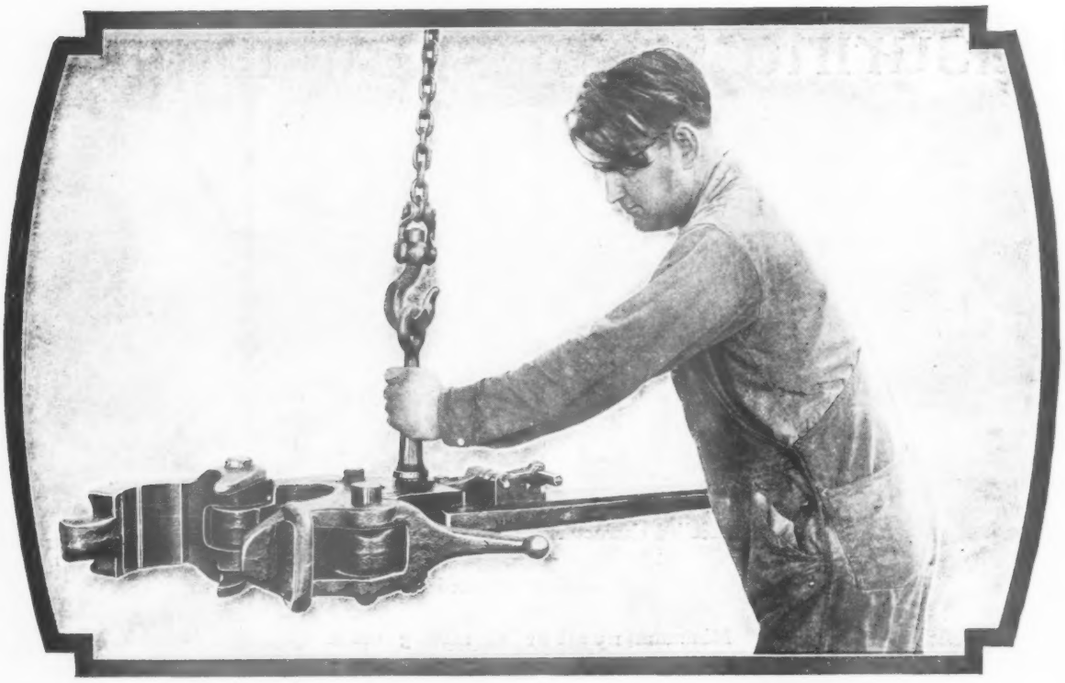
WESTCOTT & GREIS, Inc.
Sales Service
Dallas TULSA Los Angeles

Write for the 1926 Edition of the Orifice Meter Bulletin

METRIC METAL WORKS

of the American Meter Company-Inc.

ERIE - PENNSYLVANIA - U-S-A



A One-Man Tong

The GUIBERSON Tong is a one-man tong because it:

(1) Balances perfectly;
(2) Takes hold with one thrust;
(3) Latches automatically and instantly;
(4) Can be reversed "with two fingers in two seconds;"
(5) Is easily detached by a light blow on the latch.

The GUIBERSON Tong, by use of a specially designed PIPE DIE and YOKE, is easily converted into an efficient Drill Pipe Tong. Patented.

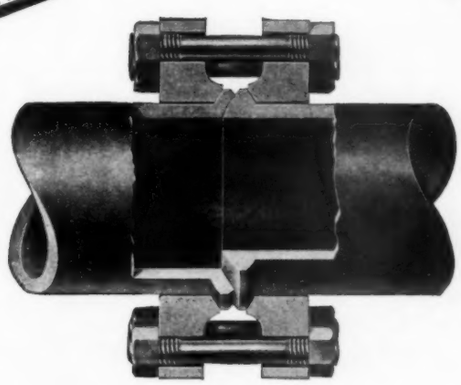
"Better Be Safe Than Sorry"

THE GUIBERSON CORPORATION
Box 1106, Dallas, Texas
CALIFORNIA BRANCH: 1506 Santa Fe Avenue, Los Angeles
402 W. First St., TULSA
506 Trust Bldg., NEWARK, O.

GUIBERSON
BETTER BE SAFE THAN SORRY

During—

7310



were installed by Refiners

Very good reasons must exist for such wide acceptance and use of Midwest Joints among the refiners of the country. And present indications are that the number of Midwest Joints placed in refinery service during the last half of this year will far exceed the figure for the first six months.

Midwest Joints are used principally upon piping for cracking units operating at pressures from 200 to 500 pounds and with temperatures ranging from 700° to 1000° Fahrenheit. Refiners are now also using them on hot oil lines regardless of pressure—wherever there is danger of a leak, flash and fire. Another important application is upon high pressure steam lines.

Midwest Joints require no gaskets—there is nothing to blow out and cause a flash and fire with its frequent expensive and disastrous consequences.

Erection of piping is greatly simplified when it is provided with Midwest Joints—because their contact surfaces are spherical and the piping need not be in perfect alignment. Deflections to 3° are possible.

These are simply a few of the many advantages that Midwest Joints have for the Refiner. We shall be glad to send you complete information and performance data without obligation.

MIDWEST PIPING & SUPPLY COMPANY
1400 South Second St.
ST. LOUIS, MO.

Tulsa Office: 805 Mayo Building Chicago Office: 208 So. La Salle St.
Fabricators of Oil Refinery, Natural Gasoline Plant and Power Piping

MIDWEST Joints and Piping

The Jensen Jack

STANDARD SEAMLESS CASING DRILL PIPE TUBING

F-R SERVICE RUBBER BELTING

Reid OIL & GAS ENGINES POWERS

WHITLOCK CORDAGE

P.O.T.Co. HYDRAULIC PUMPING UNITS

ROEBLING WIRE LINES

TRANSIT PUMPS

Johns-Manville Packings

"CAMEL HAIR" BELTING

DREADNAUGHT ROTARY EQUIPMENT

Reduce the lifting cost per barrel.
Increase the number of barrels.
Made for the deepest wells.
Handle the largest producers.
Adjustable long stroke.
Absolutely straight pull.
Hundreds sold to single producers.

Ask at any Frick-Reid Store or send for illustrated literature.

Dreadnaught
S. & L.
Long Stroke, Straight Pull
Pump Units

J&L CASING-TUBING LINE PIPE

Ratigan Pumping Specialties

Axelson PUMPS-SUCKER RODS FITTINGS

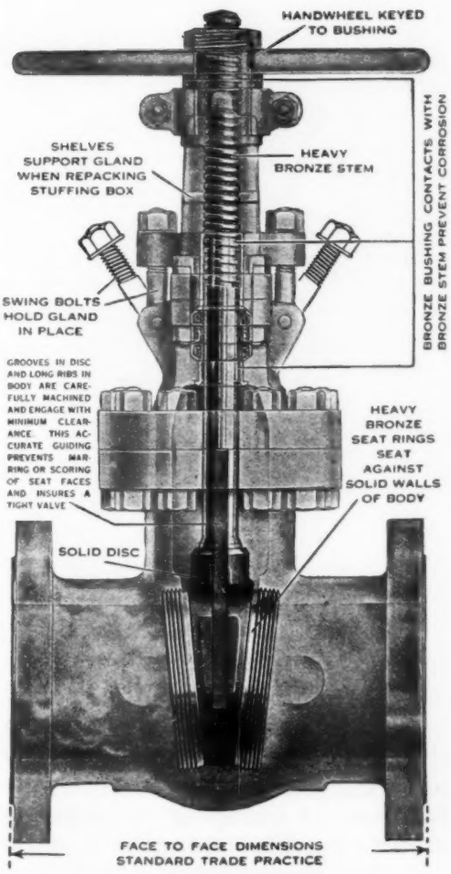
DONOVAN BOILERS

FRICK REID SUPPLY Co.

Tulsa, Okla. Pittsburgh, Pa.

West of the Mississippi, Stores Everywhere. East of the Mississippi, The Frick & Lindsay Co.

Inside Facts—


HANDWHEEL KEYED TO BUSHING
SHELVES SUPPORT GLAND WHEN REPACKING STUFFING BOX
HEAVY BRONZE STEM
BRONZE BUSHING CONTACTS WITH BRONZE STEM PREVENT CORROSION
SWING BOLTS HOLD GLAND IN PLACE
GROOVES IN DISC AND LONG RIBS IN BODY ARE CAREFULLY MACHINED AND ENGAGE WITH MINIMUM CLEARANCE. THIS ACCURATE GUIDING PREVENTS MARRING OR SCORING OF SEAT FACES AND INSURES A TIGHT VALVE
HEAVY BRONZE SEAT RINGS SEAT AGAINST SOLID WALLS OF BODY
SOLID DISC
FACE TO FACE DIMENSIONS STANDARD TRADE PRACTICE

LUNKENHEIMER
IRON BODY BRONZE MOUNTED GATE VALVE

Standard .....125 lb. W. S. P. 2 to 24 in.
Heavy .....175 lb. W. S. P. 2 to 16 in.
Extra Heavy...250 lb. W. S. P. 1½ to 18 in.

Also procurable in the Quick Operating Pattern, and in the All-Iron Pattern for handling solutions which attack bronze but not iron.

Which are influencing discerning valve users to insist upon the installation of

LUNKENHEIMER

Iron Body Bronze Mounted Gate Valves

The sectional view shows at a glance the simplicity of design, the rigid construction, and the careful attention to manufacturing details—all of which finally determine service results and ultimate valve costs.

Is it any wonder, then, that operating executives who have experienced endless trouble and expense trying to keep their gate valves tight, have enthusiastically accepted the Lunkenheimer design as a worth-while development in gate valve construction, and a solution of their gate valve problems?

Wherever Lunkenheimer Gate Valves have been installed, they are aiding materially in reducing operating costs, because they require very little attention after installation; they stay tight, and maintenance expense is held to a minimum.

Lunkenheimer manufacturing facilities insure a complete stock of all sizes at all times. Distributors are located in all oil producing centers and can fill your requirements promptly from stock.

Complete information is contained in Gate Valve Book, F. 511, a copy of which will be sent upon request without any obligation on your part.

JUST FILL IN AND MAIL THE COUPON

AMERICA'S BEST LUNKENHEIMER QUALITY SINCE 1862

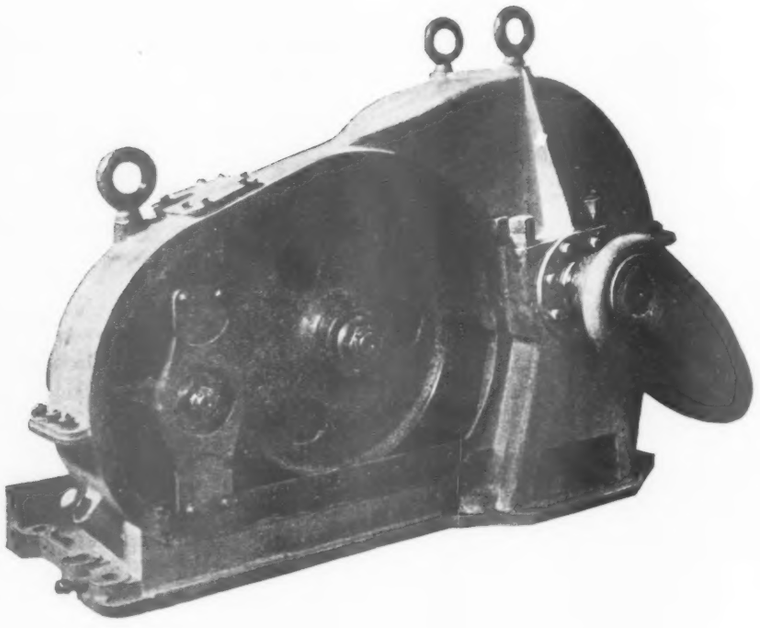
THE LUNKENHEIMER CO.
"QUALITY"
CINCINNATI, OHIO, U. S. A.
NEW YORK CHICAGO BOSTON LONDON
EXPORT DEPT. 129-135 LAFAYETTE ST., NEW YORK

THE LUNKENHEIMER CO. "QUALITY"
P. O. Box 876 Cincinnati, Ohio
Gentlemen—Send me without obligation, copy of Gate Valve Book No. 511. JA.
Name_____
Firm_____
Position_____
Address_____

6-46-91

Latest Development for the Petroleum Industry

Nuttall Solves Another Knotty Problem



For Any Type of Power—

Easily Changeable without changing Gear Unit.

Write for Details and Prices

What the petroleum industry has been wanting—and needing—for many years! A reduction gear unit for use immediately between the driving element and the standard pitman. Available for operation with any type of power now employed, whether it be electric motor, single-cylinder gas or oil engines or multi-cylinder gasoline-gas engines. A change in class of power can be made without changing gear unit or materially affecting its set-up at the well. Number of pumping strokes per minute readily changeable without disturbing crank connection or removal of main castings and shafts.

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OIL WELL SUPPLY CO.,
Authorized Distributor

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LYMAN TUBE & SUPPLY CO.,
Toronto, Montreal

Nuttall

We show a Wilson Rotary Tong having jaws and pins made of Agathon Alloy Steel

And for Rotary Tongs, Too

The uses for Agathon Alloy Steel in the oil drilling industry are many and varied. Bits of all kinds, jars, joints, underreamers and casing tongs, too, are made of these specially formulated steels that resist wear, shock, stress and strain. The success of these steels in the oil fields has been phenomenal. What part of your product needs a stronger, tougher or greater wear-resisting steel? Tell us about your steel problems. Let our metallurgists help you solve them without charge. Send for a copy of our Agathon Alloy Steel handbook.

ACATHON STEELS

CENTRAL ALLOY STEEL CORP., Massillon, Ohio

Cleveland Detroit Chicago New York Syracuse
Philadelphia Los Angeles, California Tulsa, Oklahoma

AGATHON ALLOY STEELS

PEERLESS B&K DUPLEX P.D.C.

B & K No. 6 and No. 12 machines with Peerless sliding die heads and extra wide dies for cutting long, tapered threads in the shop of the Phoenix Pipe & Supply Co., Tulsa, Okla.

They cut better threads

There are forty shops in Tulsa equipped with Bignall & Keeler machines. Five new shops established in the last six months in the Texas Panhandle installed Bignall & Keelers.

These machines cut better threads—faster, more economically. That accounts for the continued preference for them in oil field machine shops.

Bignall & Keeler pipe threading and cutting-off machines have been giving unfailing, accurate service since the oil industry was young.

A catalog with complete details and specifications of the twenty different types of B & K pipe machines on request.

Bignall & Keeler Machine Works
of the N. O. Nelson Mfg. Co.
Edwardsville, Ill.

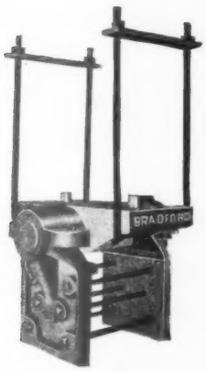
—speed, economy

OGJ11-18Gra

The Demand Proves The Merit!

"BRADFORD"

Rig Irons and Steel Equipment



Center Irons

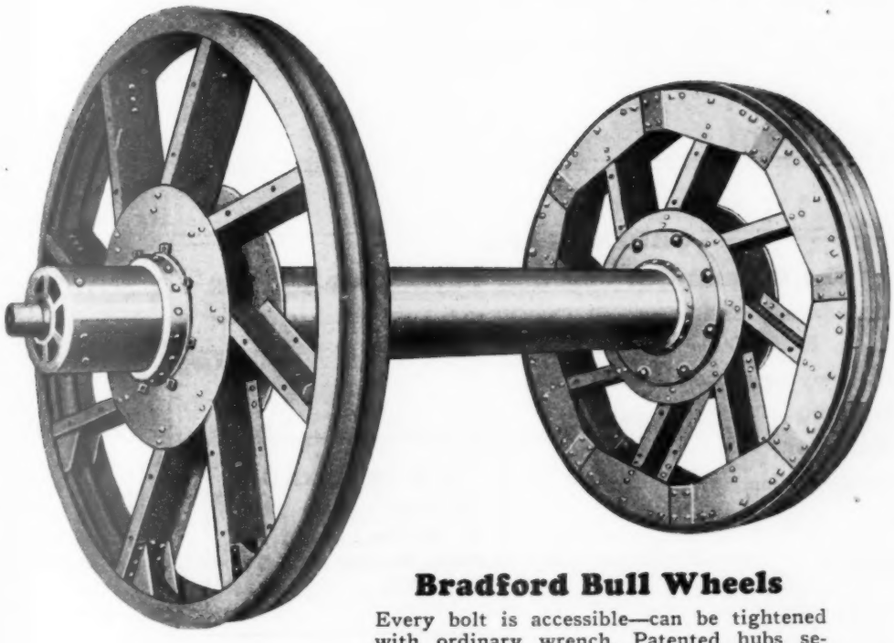
THE universal demand for "Bradford" Rig Irons and Steel Equipment on the part of both old-experienced and the new operators—is but an indication of the extreme satisfaction with which "Bradford" Equipment operates. This is not surprising, however—because "Bradford" Equipment is designed right—and has always been manufactured from the best materials possible by the highest skilled workmen obtainable.

Flanges

Easy to Assemble

One meritorious feature about "Bradford" Steel Equipment is its ease of assembly. No time whatever is lost—as correct and accurate manufacture of "Bradford" Steel Equipment insures the certainty-of-fit in assembly.

Obtainable in all active fields



Bradford Bull Wheels

Every bolt is accessible—can be tightened with ordinary wrench. Patented hubs securely riveted to shaft. Arms of wheels riveted to heavy steel flanges—which eliminates attaching arms to shaft wheels and prevents getting out of line in handling.

Manufactured and for sale by

"UNITED"

IRON WORKS, INC.

KANSAS CITY, MO.

TULSA—DALLAS

Referred by Uncle Sam

Mr. Albert Silverman, Biltmore Hotel, Los Angeles, California, wrote to Secretary of the Navy Curtis D. Wilbur, a fellow Californian, asking for some information about oil production. He received the following reply:

DEPARTMENT OF THE NAVY
Office of the Secretary
Washington

9 October, 1926

Dear Sir:

Replying to your communication of 30 September, 1926, I beg to inform you that the Navy Department has no data on oil and production of Archer County, Texas.

It is suggested that you write to one of the following for the desired information:

U. S. Geological Survey, Department of the Interior, Washington, D. C.;
State Geological Department, Austin, Texas; or
The Oil and Gas Journal, Tulsa, Okla.

Very sincerely,

CURTIS D. WILBUR.

Mr. Silverman wrote to The Oil and Gas Journal and got the information.

Keep in Touch by Using This Coupon

ORDER BLANK

The Oil and Gas Journal, Tulsa, Okla.

You are hereby directed to mail The Oil and Gas Journal to me for ..... year. Enclosed find remittance $.....

Classify my interests as checked by me.

.....Producing .....Refining
.....Equipment ..... Marketing
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U. S. OR MEXICO	
One Year	$6.00
Six Months	3.00
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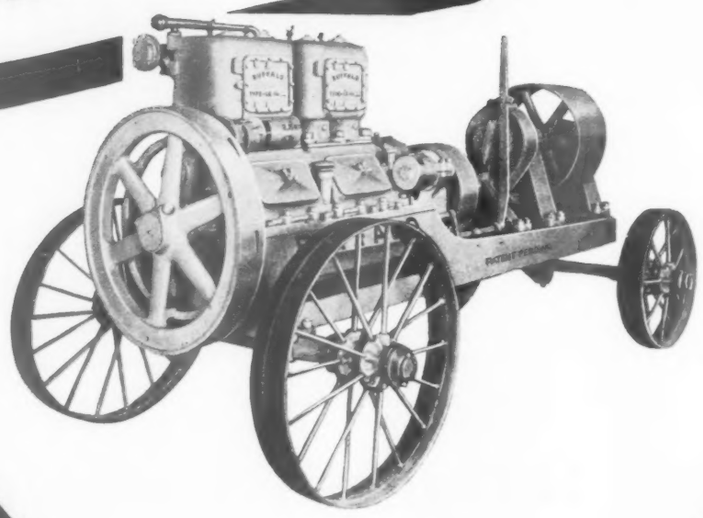
LEIDECKER
SPIRAL BITS
Patented
Other patents pending

advanced tools for an advancing industry

in the matter of drilling bits little had been done to improve over Colonel Drake's basic patterns until Spiral Bits were devised -:- these advanced tools register a distinct improvement in design -:- a design which conforms to other conventional drilling or boring tools -:- naturally they are better adapted to the demands of a modern advancing industry -:- as the means of more and better performance, Spiral Bits are speeding accomplishment as results indicate— faster, easier, straighter -:- Drilling Tools Designed Right Will Drill More.

Spiral Bits are sold in the oil country by all up-to-date supply houses -:- manufactured by The Leidecker Tool Company at Marietta, Ohio -:- Distributed by the Leidecker Branches at Casper and Basin, Wyoming, and Bartlesville, Oklahoma -:- Export Office, 90 West Street, New York City -:- Call the Mid-Continent Agency— Bovaird Supply Company, Distributors at Tulsa, Sapulpa, Beggs, Bristow and Seminole, Oklahoma, and Borger, Texas.

Buffalo



Buffalo Drilling Unit

Note These Points

Four-cylinders, 6¾x9 motor.

Equal to steam for dropping tools or pulling a bailer.

Whole outfit in one unit—weighs only 6300 pounds.

Operates on gasolene or natural gas.

Uses less than one-half barrel of water per day.

Gives any motion the driller desires — a wide range of speeds.

It can be rigged up in one hour —no special setting form required.

Generates lights for the derrick.

It can be operated for less than ten dollars per day.

Each day the Buffalo Drilling Unit is adding to the proof of its ability to meet the actual conditions in the oil fields.

Users tell us it is equal to steam for dropping tools and pulling a bailer; that it saves from $40.00 to $100.00 per well in moving cost.

One contractor drilled 49 wells with a Buffalo Drilling Unit at a cost for replacement parts of only $172.50. Another drilled 32 wells at a cost of approximately $75.00 for repairs. Other reports tell of the efficiency of the Buffalo Drilling Unit where fishing jobs are encountered and also in muddy holes.

The Buffalo Drilling Unit is outstanding for steady, dependable service. It is built for hard work at low cost.

Let us send you prices and full information in regard to the Buffalo Drilling Unit

Buffalo Gasolene Motor Company

1282-1292 Niagara Street **Buffalo, N. Y.**

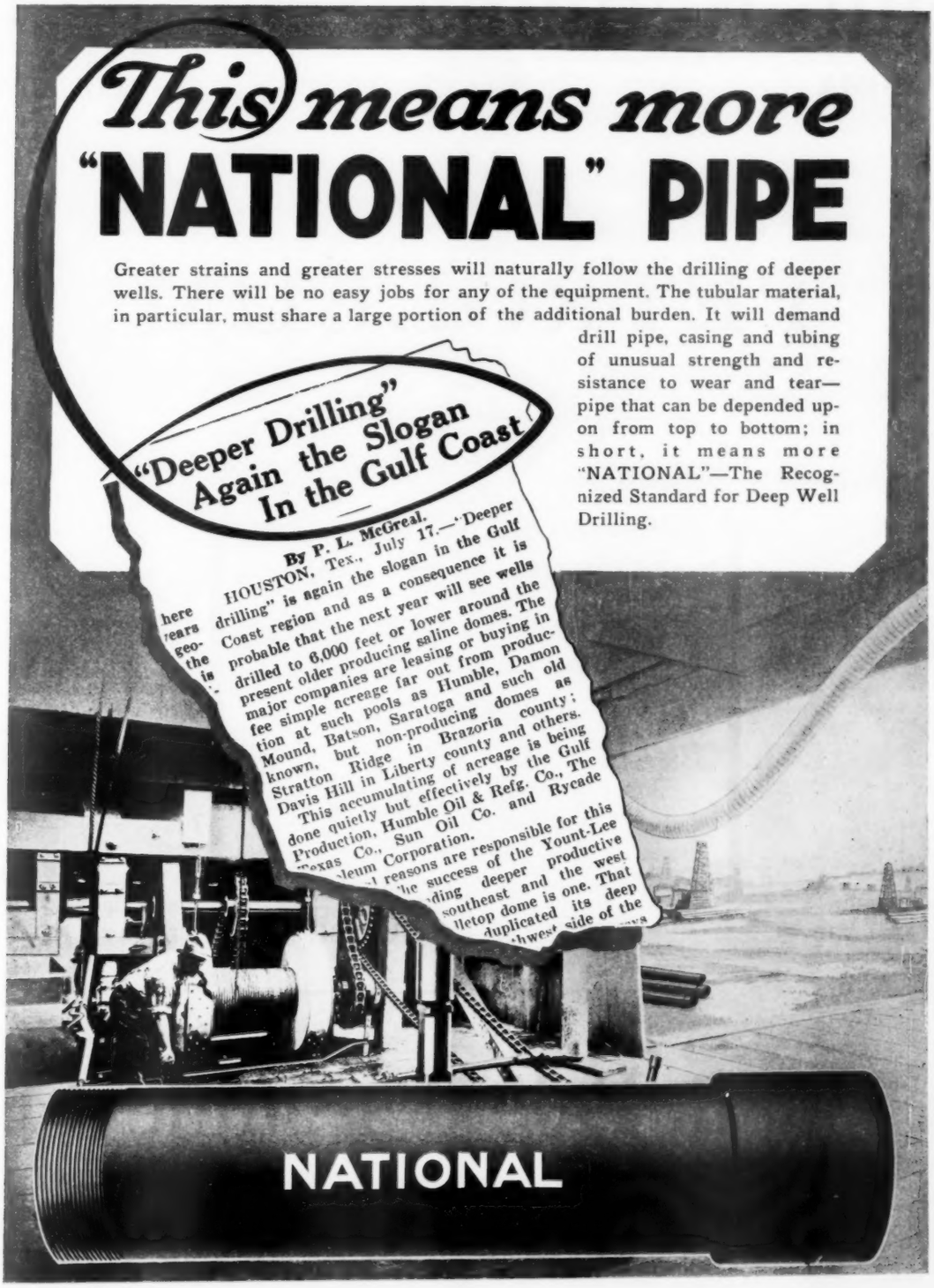
R. H. Shields, Western Distributor,
Eldorado, Kansas
Best, Texas
Midland, Texas
McCamey, Texas

R. R. Reck, Eastern Distributor
Bradford, Penna.

Parkersburg Rig & Reel Co.,
Parkersburg, W. Va.

This means more "NATIONAL" PIPE

Greater strains and greater stresses will naturally follow the drilling of deeper wells. There will be no easy jobs for any of the equipment. The tubular material, in particular, must share a large portion of the additional burden. It will demand drill pipe, casing and tubing of unusual strength and resistance to wear and tear—pipe that can be depended upon from top to bottom; in short, it means more "NATIONAL"—The Recognized Standard for Deep Well Drilling.


"Deeper Drilling" Again the Slogan In the Gulf Coast
By P. L. McGreal.
HOUSTON, Tex., July 17.—"Deeper drilling" is again the slogan in the Gulf Coast region and as a consequence it is probable that the next year will see wells drilled to 6,000 feet or lower around the present older producing saline domes. The major companies are leasing or buying in fee simple acreage far out from production at such pools as Humble, Damon Mound, Batson, Saratoga and such old known, but non-producing domes as Stratton Ridge in Brazoria county; Davis Hill in Liberty county and others. This accumulating of acreage is being done quietly but effectively by the Gulf Production, Humble Oil & Refg. Co., The Texas Co., Sun Oil Co. and Rycade leum Corporation.
reasons are responsible for this he success of the Yount-Lee ding deeper productive southeast and the west lletop dome is one. That duplicated its deep hwest side of the
here
years
geo-
the
is
NATIONAL

NATIONAL TUBE COMPANY, PITTSBURGH, PA.

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Providence, R. I.
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Galveston, Texas

THE NAME IS A LUCEY GUARANTEE

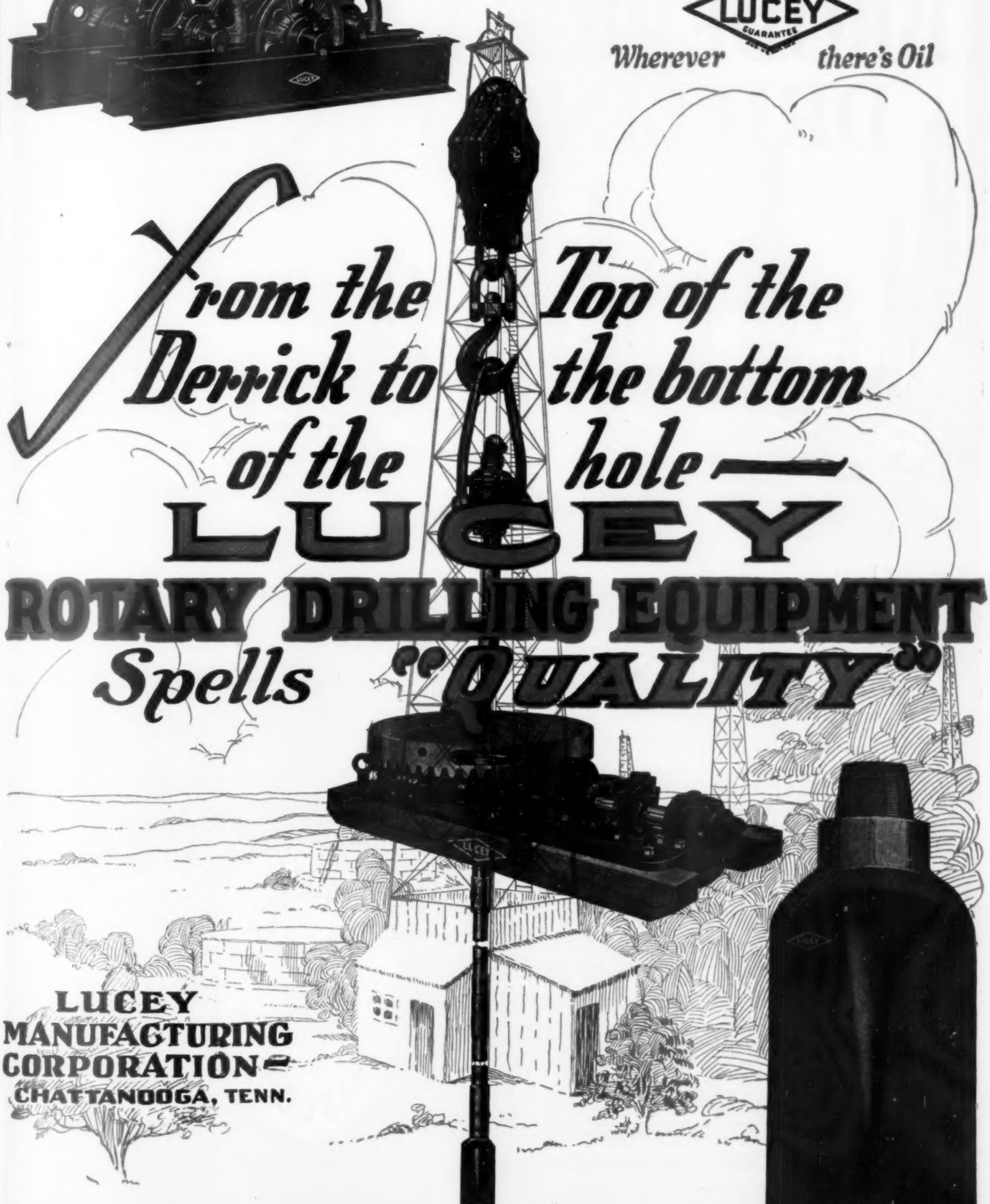
Wherever there's Oil

From the Top of the Derrick to the bottom of the hole—

LUCEY

ROTARY DRILLING EQUIPMENT

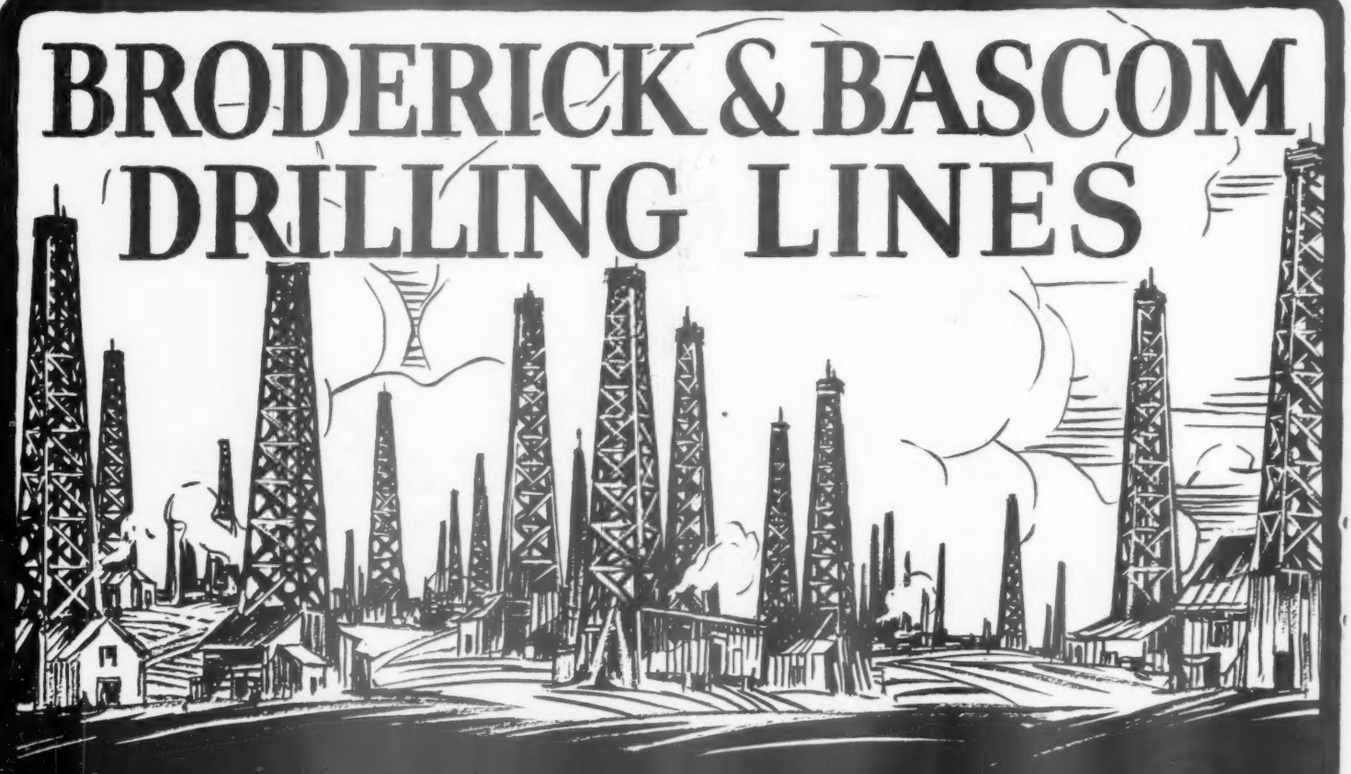
Spells "QUALITY"



LUCEY MANUFACTURING CORPORATION
CHATTANOOGA, TENN.

Export Department
Woolworth Building, New York City
Distributors
Lucey Manufacturing Corporation of Tennessee
Mid-Continent General Office and Central Warehouse, Tulsa, Okla., with branches at Tonkawa and Healdton, Okla.
T. T. Word Supply, Houston, Texas; Shreveport, La.
Bradford Supply Company, Wichita Falls, Texas
International Supply Company, Stroud, Garber and Wewoka, Okla.

BRODERICK & BASCOM DRILLING LINES



THE deeper the hole, the more you will appreciate the stamina of famous B. & B. Drilling Lines. They literally "go further." So does the money you spend for them.

Strong, extraordinarily elastic and pliable. Quicker drilling and less risk with B. & B. Patentsteel, Extra Strong or Cast Steel Lines. Also powerful Yellow Strand Rotary Lines for rotary fields.

Write for catalog K2 and name of nearest distributor.

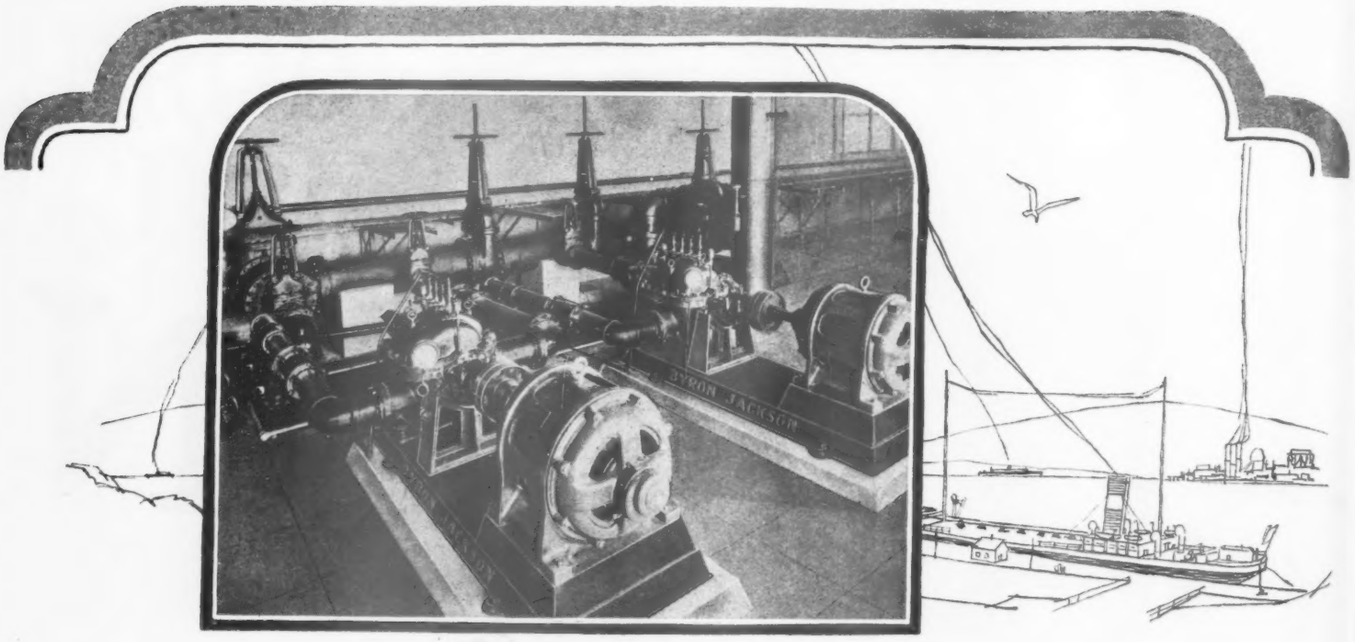
BRODERICK & BASCOM ROPE CO.
St. Louis, Mo.

Branches: 76 Warren St., New York and Seattle, Wash.
Factories: St. Louis and Seattle

K 353

PIPE COUPLINGS

THE DAYTON PIPE COUPLING CO.
DAYTON, OHIO

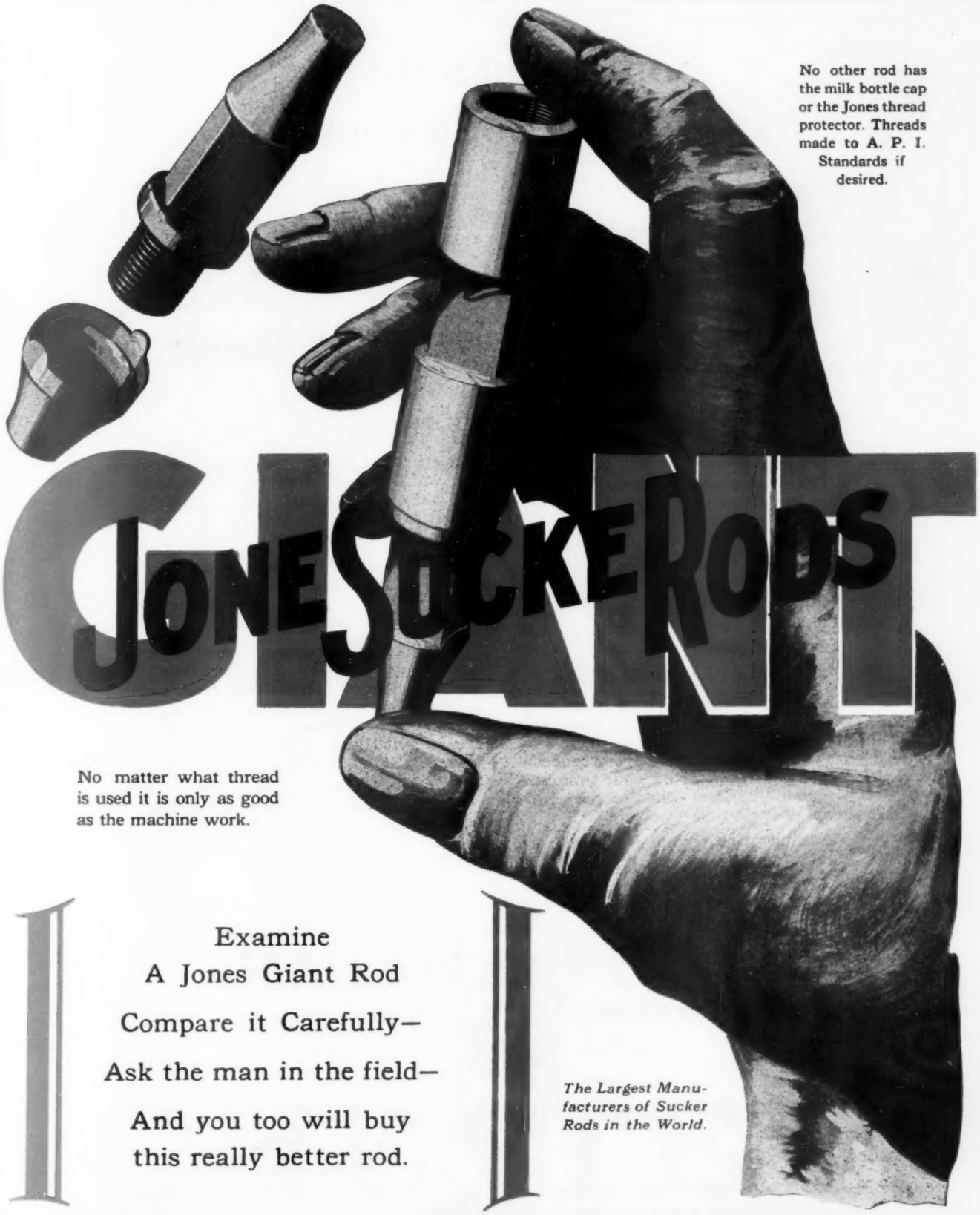


Byron Jackson
Marine Loading Centrifugals

Modern ship loading requires Byron Jackson centrifugal pumps. Pumps of the type here illustrated are handling 8,000 barrels per hour. When used in battery formation three of these pumps load tankers of 100,000 barrels capacity in four hours time.

Byron Jackson centrifugals have many advantages over the reciprocating type. They have a low first cost, are simple and sturdy and free of destructive vibration and pulsation. The demonstrated economy and efficiency have made Byron Jackson centrifugals standard equipment in many of the largest marine loading stations.

BYRON JACKSON
PUMP MANUFACTURING CO.
FACTORY AND MAIN OFFICE: BERKELEY, CAL.
BRANCHES: SAN FRANCISCO, LOS ANGELES, VISALIA, PORTLAND, OR. SALT LAKE CITY



No other rod has the milk bottle cap or the Jones thread protector. Threads made to A. P. I. Standards if desired.

JONES SUCKER RODS

GIANT

No matter what thread is used it is only as good as the machine work.

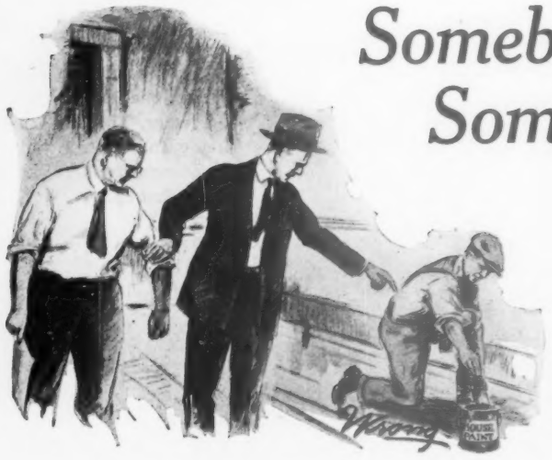
Examine
A Jones Giant Rod
Compare it Carefully—
Ask the man in the field—
And you too will buy
this really better rod.

The Largest Manufacturers of Sucker Rods in the World.

THE S. M. JONES COMPANY.
TOLEDO, OHIO.

Mid-Continent Office: 602 Wright Bldg., Tulsa, Okla.

Somebody's right Somebody's wrong



THERE'S a right and wrong way of doing everything, and it applies to buying paint.

The right way is to know what you want and know that you get it—*every time.*

The wrong way is to get various paints for the same service, in various plants.

If the type is right, the quality right and the price right for one plant it is right for all plants.

Here Is An Interesting Service

Sherwin-Williams (with your permission, of course) come into your plant and make an expert paint survey. This survey covers every conceivable use of finishes on your premises—for building and other property upkeep.

Authoritative recommendations are made to you.

If accepted a chart is made up specially for your business. The chart lists every surface in your plant requiring paint, the product recommended and the color (actual color sample) chosen by you. Each such recommendation is given a number.

In other words, this chart represents what you want used throughout your company's property and all anybody has to do is order by number.

You have standardized your paint buying with a Paint Standardization Chart. All buying from that time on is controlled and directed automatically. As many duplicates of the chart are supplied by Sherwin-Williams, free of charge, as your organization needs.

Such a system assures the best finishes throughout, stops wasteful buying and makes buying simple and easy for everyone.

SHERWIN-WILLIAMS

PAINTS, VARNISHES AND LACQUERS

COVER THE EARTH

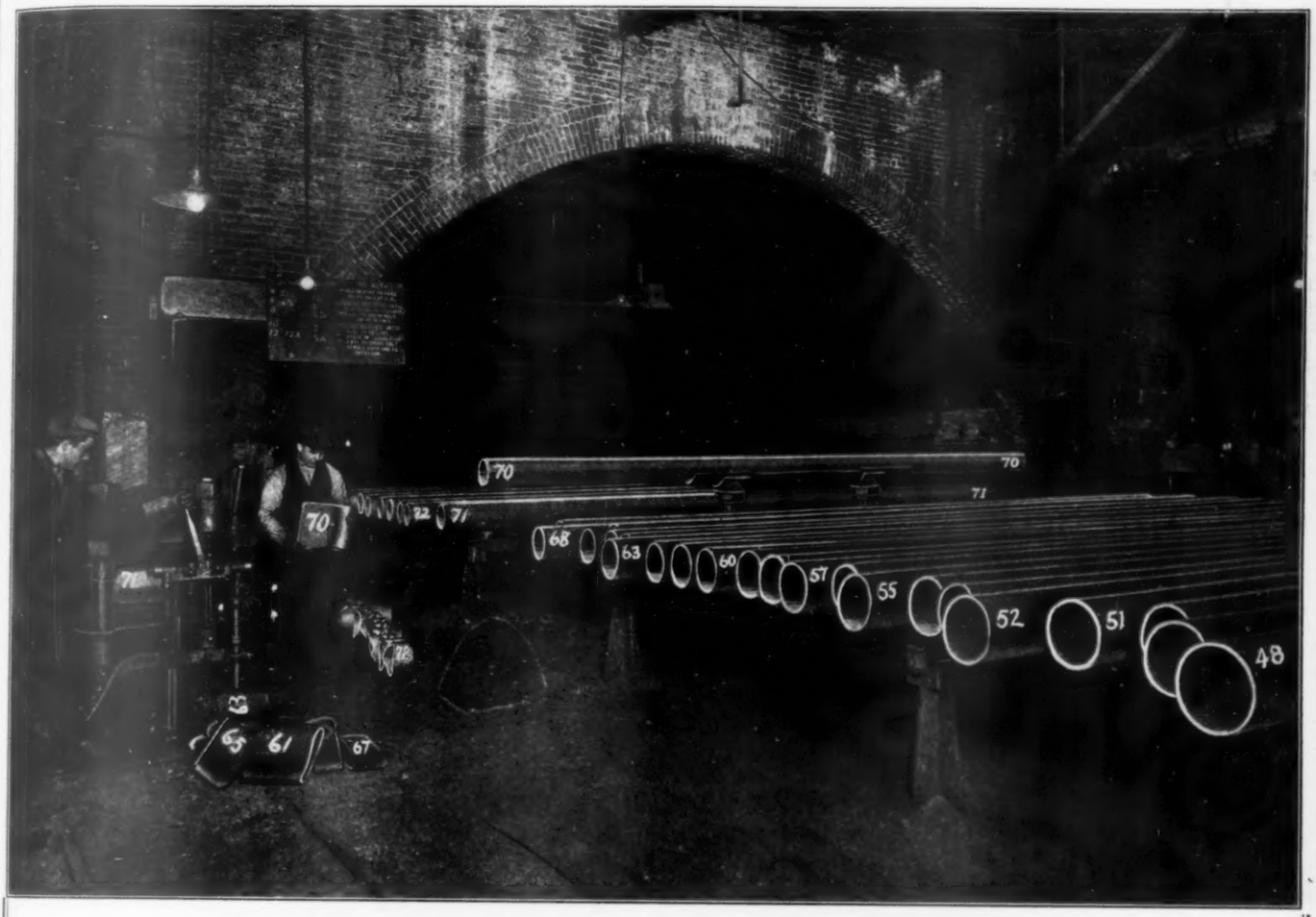
The Sherwin-Williams Co.,
414 Canal Road, Cleveland, O.

Supply us, without any obligation, complete details of your free expert paint survey and your Paint Standardization Service.

Name .....

Street ..... *Place* .....

Write us for particulars on Paint Standardization as applied to your individual business. No obligation whatever is involved. Use the coupon—send it today.



The Same Test That Railroads Use in Buying Rails

Every length of Chester Casing, Pipe and Tubing must pass the Crop-End Test. Both crop ends are crushed and examined as an additional important physical test to check the character of weld and metal of each length of pipe.

By the system of duplicate numbers on pipe and crop-ends, identity is immediately established. Rejects are returned to the mill for retesting or rejection.

The usual method of testing and checking heavy duty material is to take a small percentage of the number of pieces for test purposes. South Chester Tube Company goes to the extreme of making two tests of each length which represents a 200% check.

This is but one of the means Chester employs to insure 100% satisfaction in its product. The wide use of Chester Products is evidence that the value of these tests is appreciated by the Trade.

SOUTH CHESTER TUBE COMPANY, Chester, Penna.

Pittsburgh New York Houston Tulsa Los Angeles

Also Makers of Wrought Iron Casing from 4½" to 12½"

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Houston, Texas

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Wagner Supply Co.,
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United Oil Well Supply Co.,
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Hillman-Cooney, Inc.
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Midland Iron Works
Billings and Kevin, Montana

Warehouses at Houston, Texas; Thenard, Calif.

CHESTER

STEEL CASING

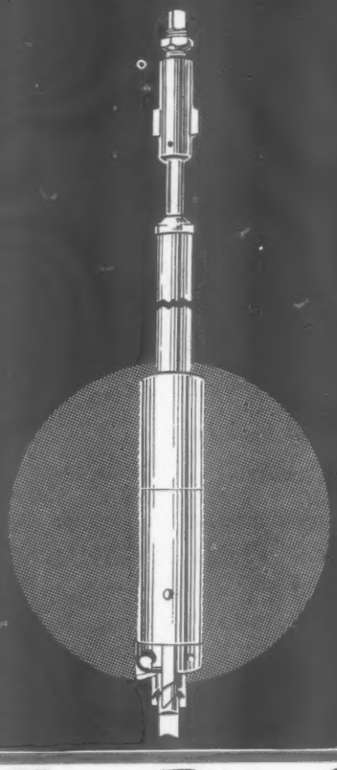
SPECIALISTS IN CASING FOR DEEP WELL DRILLING

REED ROTARY DRILLING TOOLS

By making it easy to determine exactly what lies ahead, the

Reed Coring Tool

performs a service of utmost importance to drillers of test and "wildcat" wells.



Reed Roller Bit Company

HOUSTON LOS ANGELES

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The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

VOL. 25. NO. 26. TULSA, OKLAHOMA, NOVEMBER 18, 1926

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Crude Oil Production Shows Decrease

Highest daily average estimated production in 1925 week ended May 30, 2,347,984 bbls. Lowest in 1925, January 3, 1,911,730 bbls.

Humble to Reduce Pipeline Gathering Charge. Clarifying of Mid-Continent Price Situation Expected Soon

By Andrew M. Rowley

Highest daily average estimated light oil production in 1925, week ended January 17, 1,525,220 bbls. Lowest in 1925, July 18, 1,374,173 bbls.

For the first time since the week ending September 25, production of crude oil in the United States last week showed a decline, the pinching in of wells in the Seminole Field in Oklahoma and the curtailment of operations there under the agreement in effect to prevent waste and limit the production of the field to facilities for handling the oil, resulting in a decline in the output of that area.

Of far-reaching interest is the announcement that the Humble Oil & Refining Company will reduce pipeline gathering charges from 20 to 12½ cents as soon as the Railroad Commission of Texas approves. It is reported the Oklahoma Pipe Line Company may be expected to announce a similar reduction. This decrease in the gathering charges means refiners in the area affected will get the crude at 7½ cents a barrel less than they have been paying.

Indications on Tuesday of this week were the uncertainty regarding the crude oil price situation in the Mid-Continent area probably would be cleared within a few days. Officials of the Sinclair Crude Oil Purchasing Company and the Prairie Oil & Gas Company were checking conditions further with the possibility some announcement on the price structure might be forthcoming.

An important development of the week was the going dead of three wells in the Seminole Pool which had been large producers. Whether this condition resulted from pinching in the wells has not been determined and efforts to revive the flows are being watched with considerable interest. The fact the Panhandle Field in Texas failed to show a decline in output during a week when the temperature of that area was below the point where it had been said Panhandle crude would congeal is worth consideration, especially in connection with experiments being carried on in that field to reduce the paraffin trouble.

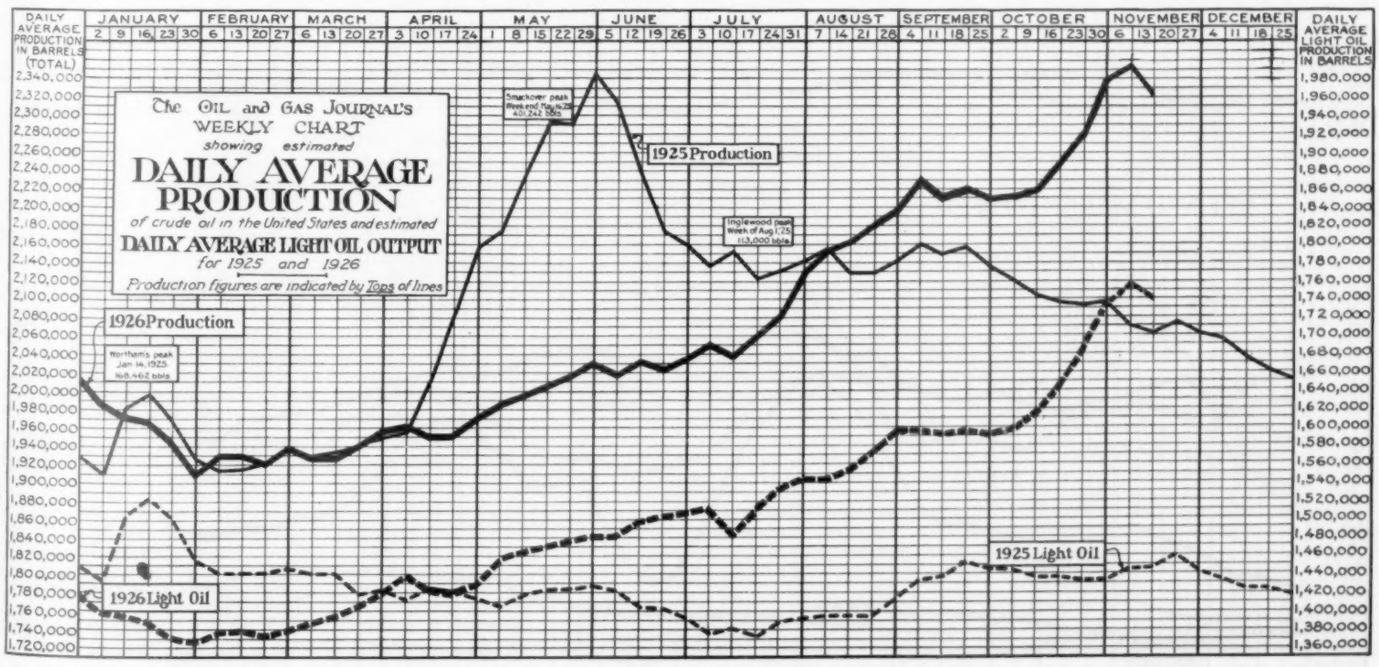
While efforts to maintain the crude oil price structure at its present level may not be successful, conditions in the industry are and have been most satisfactory. Prices have been maintained at a higher level than the average for five years because of the steady and increased demand for petroleum products, and vast sums are being expended at this time for storage, pipelines and extensions to refineries and gasoline plants, with further expenditures along these lines planned for the near future.

PRODUCTION IN THE UNITED STATES

Estimated daily average production of light and heavy gravity oil in the United States for week ended November 13, and a comparison with the previous week follows:

	Nov. 13		Nov. 6	
	Light	Heavy	Light	Heavy
Oklahoma—				
Tonkawa	33.485	.....	34.660	.....
Burbank	46,740	.....	48,010	.....
Other Osage Fields	34,370	.....	34,405	.....
Cushing and Shamrock	21 395	.....	21.415	.....
Bristow and Eastern Bristow	26 870	.....	26.940	.....
Cromwell	14.595	.....	15,060	.....
Garber	23 085	.....	23.515	.....
Blackwell-Braman	34.780	.....	38 490	.....
Seminole	106.445	.....	112,585	.....
Wewoka	25.715	.....	25,540	.....
Northern Miscellaneous	115.810	.....	113 750	.....
Southern Fields	63,405	.....	63,510	.....
Total Oklahoma	546.695	.....	557,880	.....
North Louisiana	42,070	14,855	43,155	14,350
Arkansas—				
Smackover	13.735	114,010	13,860	115,115
Miscellaneous	16 635	.....	17,240	.....
Total Arkansas	30.370	114,010	31.100	115,115
North Central and West Texas	205.155	.....	206.775	.....
Texas Panhandle	169 275	.....	158.235	.....
East Central Texas	54.790	.....	55,704	.....
Kansas	113,890	.....	114,815	.....
Total Mid-Continent Area	1,153,245	128,865	1,167,664	129,465
Gulf Coast	.....	169,846	.....	178.810
Southwest Texas	.....	43,250	.....	42,890
Eastern	109,850	.....	109,200	.....
Rocky Mountain Area	92,095	.....	94,815	.....
California—				
Santa Fe Springs	46 500	.....	47,000	.....
Long Beach	94,000	.....	94,000	.....
Huntington Beach	71,000	.....	75,000	.....
Torrance	5.500	21,000	5.000	21,000
Dominguez	22,000	.....	22,000	.....
Rosecrans	14,500	.....	14,000	.....
Inglewood	25.500	15,500	25,000	15,500
Ventura Avenue	56 000	.....	54,000	.....
Remainder of State	50,000	210,000	50,000	210,000
Total California	385,000	246,500	386,000	246,500
Total United States	1,740,190	588,461	1,757,679	597,665
Grand Total		2,328,651		2,355,344

Total Decrease, 26,693 Bbls.; Light Oil Decrease, 17,489 Bbls.



WHAT AND WHERE TO BUY—PAGES 189-190-191

Higher Gravity Gasolines Tighter

Export Purchases in North Texas Aid Oklahoma Market. Low Cold Test Fuels and Distillates in Better Demand

By Neil Williams

A tighter tone in higher gravity gasolines and low cold test lighter fuel oils, and a better demand for gas oils and distillates summed up trend changes in the Oklahoma (Group 3) refined market the past week. Motor fuels and lower grades of gasoline and the heavier fuel oils continued to weaken and natural gasolines remained firm.

The firming of higher gravity gasolines was largely a reflection of extensive purchases from north Texas refiners by three large export companies which placed orders for from 3,500,000 to 4,000,000 gallons of 64-66 375 gasoline. These purchases cleaned up the north Texas market, thus removing Group 3's competition from that source. A domestic buyer in the market for 100 cars of this same material was unable to cover in north Texas and was making inquiries in Oklahoma.

The demand for low cold test fuel oils of the higher gravities was brisk and refiners with these products were getting premiums. Other fuels continued inactive and additional concessions were being given to move these grades.

A purchase of more than 500,000 gallons of kerosene from north Texas refiners gave some encouragement to the Oklahoma kerosene situation, but purchases out of the Group continued light in line with the sluggish domestic demand which has existed for two months.

Natural gasolines found a fairly active movement, sufficient to maintain firm prices. Recent purchases have placed many manufacturers in a good position for the time being and with a domestic demand from the northern states the market is being kept clear of distress material.

REFINED MARKET BAROMETER

The better outlook for fuel oils, chiefly at eastern refining centers, due to the tight coal situation, featured refined markets of the country the past week. Both at Atlantic Seaboard and Pennsylvania refineries fuel oil price trends were upward with products in demand. The lower gravity fuels still were inactive in Mid-Continent and Chicago areas, but a keener demand developed for the lighter grades of low cold test. Gasolines on the whole continued unsettled, due to a sluggish spot demand largely the result of an uncertain crude market, but substantial buying of the lighter ends in parts of the Mid-Continent, both for export and domestic consumption, resulted in a firmer tone for those products in that area. Kerosenes were but little changed. There was a small export demand in the Mid-Continent, but domestic purchases continued slow in all districts. Gas oil and distillates east of the Rocky Mountains felt improved demand and some firming of prices because of increased burner consumption in northern states. Lubricating oils on the whole are firm. Natural gasolines were unchanged.

Mid-Continent—Substantial purchases in north Texas for export gave a firmer tone to higher gravity gasolines. Motor fuel and other gasolines continued slow with price trends downward. Kerosene still sluggish, although some material moved from north Texas into export channels. Lighter fuel oils of low cold test in demand, but other fuels weak. Gas oil and distillates in better demand.

Atlantic Seaboard—Strength of fuel oil, due to tightness of coal situation, featured Atlantic Seaboard refined markets. Bunker oil advanced 10 cents by Standard Oil Co. of New Jersey and price trends of other fuels upward. Gasoline still unsettled. Lubricating oils firm as domestic demand improves. Wax demand restricted.

Pennsylvania—Gasoline movements fair and few concessions made. Kerosene slow and price trends downward. Fuel oil strong. Wax holding own. Cylinder stock demand picking up. Neutrals scarce and bright stocks active.

Chicago—Spot motor fuel market dull, due to unfavorable weather. Prices not promising. Higher gravity gasolines aided by export and domestic purchases in the Mid-Continent. Kerosene more free. Gas, oil and lighter fuels firmer, but heavy fuels easy.

California—Refined markets uncertain, due to weak conditions of most products east of the Rocky Mountains. Natural gasolines also softer as production mounts.

Gulf Coast—Prices unchanged, but lubricant movements continue to increase.

Still Unsettled

The general refined market situation, however, continued unsettled the past week, as several of the larger crude purchasing companies in the Mid-Continent until late Tuesday had not taken any action on the lead taken by other big buyers in reductions the first week in the month. This uncertainty no doubt still is keeping many orders from being placed for the time being, and on the whole an inactive tone stil lexists in the Oklahoma refined market.

Some indication, however, was given the past week that an early stabilization of conditions is expected by the trade in the numerous inquiries received by some refiners from jobbers for gasoline for the remainder of the year. Most of the offers were at prices slightly below the present spot quotations, but judging from the nature of some of the sales made it was apparent that there was a growing feeling that gasoline was a good buy at the spot market or at a quarter cent under.

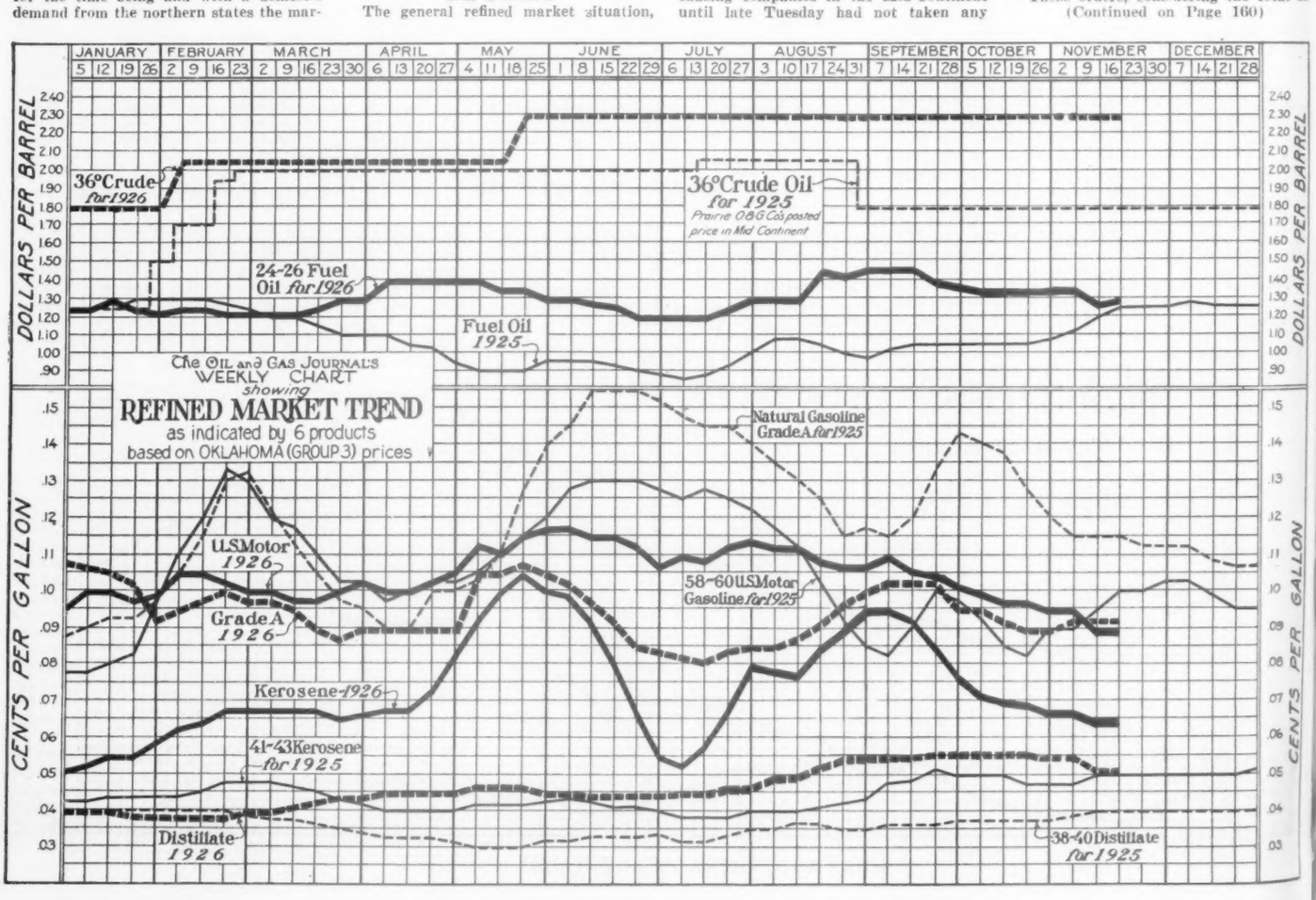
One refiner in particular reported having sold more than 100 cars of U. S. Motor gasoline (58-60 437) for delivery at his discretion any time before January 1. The various jobbers placing the orders purchased the gasoline to be put in storage and not for current needs. The refiner can ship the entire amount immediately or does not have to ship any before January 1.

To Fill Storage

This also showed that some jobbers at least are ready to fill their storage in anticipation of a greater demand early next year or next spring. It has been believed for some time that jobbers' storage has been virtually empty and that there might be a tendency to fill this as soon as conditions became more stabilized.

These orders, considering the total ex-

(Continued on Page 160)



Prices Have Held Remarkably Well

Underlying Strength of General Petroleum Situation Evident. Spending Large Sums for Pipelines and Storage

By J. L. Dwyer

When the oil men of the nation bend their heads over the Thanksgiving turkey next week, they will have ample reason to feel grateful for the benefits which have attended their progress down the petroliferous path during the current year.

If any one outstanding advantage which the industry has enjoyed during 1926 is to be singled out, it must be the stability of the price structure, for since 1920 there has not been another situation as favorable in this respect.

While the feeling among the majority of the oil executives has been one of satisfaction with the position of the industry, there are naturally some exceptions. There are three groups, each making observations from its own perspective. The first feels that owing to the huge production which is being brought above ground, the price should be lowered. This course would permit the refiner to take advantage of the temporary overproduction. The second group feels that in justice to the oil producer, the price should be maintained as long as possible. This course, they explain, would prevent the refiner from purchasing cheaper crude and dumping huge quantities of cheap gasoline on the market at a time when markets are easily demoralized. The third group engaged in an endeavor to at once be all things to all men, is straddling the industrial fence.

Great Underlying Strength

Outside of the executives, much comment upon the oil situation is heard, and the majority of it is distinctly favorable. The underlying principles which control the crude price structure must have been strong, for like the folds of the earth, the conditions underneath are in a general manner reflected by the surface indications, and each fold and fault below the surface gives evidence of its presence. The fact that the tremendous production has been unable to make any material inroads upon the price schedule, speaks volumes for the strength of the market, and it is more than any other factor in the oil situation which impresses the man in the street.

The most of the unfavorable comment which has been voiced emanates from those who scrutinize the workings of the stock ticker with more care than they observe the oil situation. These individuals are inclined to go pole vaulting through the framework of petroleum economics, leaping over every high point, and landing only in the depressions whence they take their bearings. Considered from their angle, the oil business is entirely faulty, because the average oil security has not attained the peak prices which General Motors and United States Steel have touched. It is well to ponder that the oil business is one thing and the stock market is most distinctly, and separately, another.

Companies Making Money

Every oil company is making money. There may be some who are only making a limited amount, but all are making money. The present production of the country is being absorbed and assimilated without any manifestations of industrial dyspepsia. There is more money being expended in the oil business today than at any time within its history. The normal consumption of petroleum products grows daily, and it might be well to consider that in September, 1922, the total gasoline consumption of the country was 13,209,000 bbls., while for September of this year it will be very close to 32,000,000 bbls.

The ability of the industry to consume the increased production cannot be illustrated better than by considering the following survey, which shows conditions in the various parts of the Mid-Continent Field. The survey shows the relations of the daily runs to the daily shipments, and indicates where oil is going into storage and coming out of storage:

Field—	Into Storage (daily)	Out of Storage (daily)
Oklahoma and Kansas	43,967	.....
North Central Texas	7,245	.....
East Texas	.....	16,134
West Texas	6,474	.....
Texas Panhandle	64,839	.....
Arkansas	.....	39,539
Louisiana	.....	27,359
	122,525	83,023
Daily net addition to storage	39,502	

The total daily production of the territory included in this survey is 1,297,129 bbls., and out of this figure 1,257,627 bbls. are being handled in pipelines and refined. Only the 39,502 bbls. remain a surplus over the demand.

Without any extensive study of statistics, the following figures which show the increased gasoline consumption may invoke the interest of the reader.

It might be stated that since January, 1922, there has not been a month of any year which has not showed a substantial increase over the same month for the preceding year. The total gasoline consumption of the country given in barrels is:

1922	142,062,000
1923	177,487,000
1924	213,970,000
1925	255,362,000
1926*	304,562,000

*Partly estimated.

Owing to the production of the Seminole and Texas Panhandle Fields, there is a pipeline construction program under way which presents a staggering cost. The Prairie Pipe Line Co.'s new line to the Panhandle is slated to cost $4,000,000, and pipeline construction work caused by the Seminole Field is estimated at a cost of $2,250,000.

The tank building companies are coming into their own share of good times, for approximately $4,500,000 worth of large steel storage (to say nothing of small tanks) is either under construction or in transit to the fields. A list of large steel storage tanks in these fields shows:

Field—	55,000 size	80,000 size
Seminole	35	8
Panhandle	101	15
	136	23

Storage in barrels:	
Seminole	2,565,000
Panhandle	6,755,000
	9,320,000

Investment in Storage

At an estimated cost of 50 cents per barrel, this means that an investment of $4,660,000 has been made in large steel tanks in these fields, and this investment reflects that the oil in both of these fields is in hands of great financial strength. While a small amount of distress crude has appeared in the Panhandle Field, Seminole is more fortunate, and every company operating in that area would very likely meet a large price reduction by storing their oil in preference to selling at a reduced figure; and incidentally, all the Seminole operators are capable of carrying on a good sized storage campaign before their treasuries feel the pinch of poverty.

The Texas Panhandle and Seminole are the only clouds upon the horizon. Early last summer, Panhandle menaced the market, and while many have been inclined to overlook and disregard it, the Panhandle will most emphatically be heard from next spring. Seminole presents another vista. It is totally different from any field which has been discovered in Oklahoma, and it seems reasonable to believe that had not the proration agreement been reached, its peak production would surpass anything which that State has witnessed.

Nothing New in Situation

The Panhandle and Seminole Fields were exploited without any regard for outlet, and wells were drilled in, on the theory that surely someone would take care of their flow. It should be recognized that such frenzied drilling campaigns in regions where pipeline facilities are grossly inadequate are not merely the expressions of misguided economic theories, but that they really constitute an all-inclusive philosophy; a philosophy which is at variance with every principle of sound business.

There was nothing really new in the situation presented by these fields; in fact they presented an annoyance much less than other years have offered. Ever since December, 1920, there has been a fly in the petroleum ointment each year. That time marked the memorable and disastrous era when the posted price of crude dropped from $3.50 to $1 per barrel within 60 days. The spring of 1921 came, and with it the danger of Mexican crude to upset conditions, and the huge production of those tropical fields continued during 1922. The year 1923

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HUMBLE OIL & REFINING CO. TO REDUCE PIPELINE GATHERING CHARGES 7½ CENTS

Announcement has been made by the Humble Oil & Refining Co. that it will reduce its gathering charges on all crudes from 20 to 12½ cents per barrel when the new schedule is approved by the State Railroad Commission of Texas, the new rate to become effective upon approval by the commission. The Humble operates an extensive system of gathering lines in Texas.

Oil men throughout the Mid-Continent area are interested greatly in the announcement, feeling it may be the forerunner of similar announcements by other pipeline companies affiliated with the Standard Oil Co. of New Jersey, such as the Oklahoma Pipe Line Co.

The direct effect of a reduction in the pipeline gathering charges is to give the refiner the crude at that much less than he has been paying.

CRUDE SITUATION MAY LIE IN HANDS OF SEMINOLE OPERATORS

By James McIntyre

In the muddled condition of the crude market there is a ray of hope. It lies in the fact that the country's most sensational and potentially most dangerous field, Seminole, in Oklahoma, is being operated by big, well-financed oil companies which may be in a position to save the market from toppling by building tanks and storing their own production.

If the proposed storage program is carried out in Seminole County ninety-five 55,000-bbl. and seven 80,000-bbl. tanks will be erected in that field, which will give a storage capacity of nearly 5,550,000 bbls. According to information reaching The Oil and Gas Journal, the Pure Oil Co. plans to erect twenty-two 55,000-bbl. tanks; the Carter Oil Co., twenty-six 55s; Indian Territory Illuminating Oil Co., sixteen 55s; Prairie Oil & Gas Co., twelve 55s, and the Barnsdall Oil Corp., twelve 55s. The remainder is divided among other companies operating in the field. The entire storage program thus far is said to be as follows:

Proposed Storage Program in Seminole Field

Company—	55,000-Bbl. Tanks	80,000-Bbl. Tanks
Carter Oil Co.	26	...
Sinclair Crude Oil Pur. Co.	1	5
Pure Oil Co.	22	...
Ind. Ter. Illu. Oil Co.	16	...
Mid-Cont. Pet. Corp.	2	...
Magnolia Pet. Co.	2	...
Barnsdall Oil Corp.	12	...
Okla. Pipe Line Co.	2	...
Tidal Oil Co.	...	2
Prairie O. & G. Co.	12	...
Total	95	7
Total net cap.	5,035,000	500,000

There never was a time in the history of the industry when such an effort was made to keep prices stabilized all along the line as at this time, when production and consumption are higher than ever before in the same period of the year. Throughout the year there has been a steady decline in crude stocks and in gasoline stocks until the latter on September 30, had fallen to a point where they represented only 38 days' supply, or to put it another way, to less than 1½ bbls. per motor.

Crude stocks have dropped from 418,417,000 bbls. on December 31, 1925, to 395,650,000 bbls. on September 30, 1926, a decline of 22,767,000 bbls. in nine months, notwithstanding the big production of this year and the development in the summer of such fields as the Panhandle and Spindletop in Texas.

The only field that is worrying the big Mid-Continent oil buyers now is Seminole. Only half the production of the Panhandle Field is being moved out of that territory because of a lack of shipping facilities, and Spindletop oil is not regarded as a competitor of Mid-Continent crude because it is of the Coastal grade, valuable principally in the lubricating field of refinery operations.

It is believed by those who would like to see the crude schedule posted on May 15 continue, that if Seminole operators will go on developing that field with an eye on the crude market, and will go through with their campaign of storage and not sell their oil, but put it away in their own storage tanks, the quantity of crude thus withheld will be sufficient

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Coal Situation Important to Refiners

Sensational Price Advances Probably Will Be Reflected In Fuel Oil Market. Coastal Prices Already Higher

By C. O. Willson

With an advance in prices which in the case of bituminous coal has averaged approximately 50 per cent during the past five weeks, a situation has developed in the coal world which merits the special consideration of the oil industry generally. About half of the products of crude oil in the United States are sold as fuels and for that reason the two industries still have reason to be very much interested in each other's' markets. Past developments have generally shown that when coal operators enjoyed high prices over a sufficiently long period, the same trend developed in the sale of petroleum distillates and other products sold under the general classification of fuel oils.

The upward trend in coal prices has been under way for several months. It started with the British coal strike which is now in its thirtieth week. The advances were slow in this country during the spring and summer months, the general attitude of the coal buyers and sellers being that the coal strike would end before fall and probable reverse the market trend here.

Runaway Market

When these predictions failed to materialize in the early fall a combination of conditions developed which has resulted in what is termed in coal circles as a "runaway market." When coal prices started to climb slowly in the spring and summer months due to an increase in export buying, domestic buyers were not alarmed and many stayed out of the market in expectation of lower prices later in the year.

These domestic buyers however were forced to get into the market about six weeks ago and their purchases, coupled with an increased export movement, have brought about an acute situation in the coal markets. Starting in the eastern coal areas the market advance has spread rapidly since the middle of September and now higher prices prevail in all sections west of the Mississippi River with a probability that it will spread to all fields west of the Rocky Mountains.

There has been a rush movement to the export terminals on the Atlantic Seaboard for export trade with a similar situation in the domestic movement to the Great Lakes area before the water transportation season closes. A car shortage in some sections has developed and the operator in a position to give immediate shipment has had no difficulty in advancing his prices almost daily, in several instances obtaining from two to three times the prevailing price in July and August.

Temporary Aspects

The coal "boom" admittedly has its temporary aspects. Many expect the British strike to be settled immediately. Several of these observers, however, have had the same opinion ever since the strike started. Coal experts now seem to agree that even if the strike should end this month, there should be a favorable coal market in the United States over the greater part of the winter. There is a shortage of coal stocks in England and other European countries which assures a stronge demand for some time after the strike is settled.

In the United States, there will be a slump in the domestic demand when the Great Lakes are closed for the winter. However stocks in the hands of distributors are low and with a good industrial demand in prospect, observers believe there will be an excellent domestic car movement until the first of the year at least.

One economist of the coal industry after a lengthy discussion of all the factors accounting for the present market situation, said that if the British coal strike continues with an early winter in this country "an acute situation" will develop in which it will be impossible to take care of large export and domestic demand. Barring an immediate collapse in overseas buying he predicted a steady climb in prices in this country.

U. S. Coal Strike

Still another factor which is pointed out by some students is the possibility of a coal strike in the bituminous fields of the United States next spring. This is not considered a factor in the current boom but might have considerable importance after the first of the year.

A wage agreement is pending in the union districts with no indications now that the operators and labor representatives will be able to get together before their present agreement expires. The big demand for coal during the past few months has resulted in many operators raising wages and this will probably make a long time agreement more difficult to arrive at next year.

Table Showing Increases

The following table summarizes the price situation in the bituminous fields showing the upward trend of the past month and the relative price per ton situation when compared to last year:

	1926, Week Ending—				1925	1924
	Nov. 1	Oct. 25	Oct. 18	Oct. 11	Nov. 2	Nov. 3
Weighted average price	$3.45	3.02	2.45	2.33	2.19	2.07

This table is based on price data collected from 14 representative fields scattered throughout the United States by Coal Age, a weekly trade publication of the coal industry. All prices are f.o.b. the mines. Bituminous coal prices vary widely due to differences in quality and nearness to consuming markets. The above table reflects an average condition. The table shows that for the week ending November 1 prices were $1.12 per ton higher than for the week ending October 11 and approximately 70 per cent higher than during the similar November periods in 1925 and 1924.

Average prices at the mines in fact are higher than any time since early in 1923 with many observers characterizing the present market as the "most important periodic boom that the coal industry has had since 1920."

Fuel Oil Situation

The foregoing summarizes developments in the coal industry. Every refiner and distributor of petroleum products wants to know what effect it will have on all petroleum products sold as fuel oil.

So far as prices are concerned it can be said that at interior points there has been no general reponse in fuel oil prices to the upward trend in coal quotations. In fact, the fuel oil market, including distillates, at interior points has generally been termed sluggish for several weeks. Prices have declined from a peak reached early in September and are at present below the average for the year.

In discussing fuel oils it is necessary to divide the United States into coastal and interior markets. Considered over a period of a year these two markets follow the same general trends. However the interior market is usually much more sensitive in its price fluctuations to changes in market conditions.

Coastal Prices Higher

In the coastal areas, large quantities of bunker oils are distributed. These are generally sold on long time contracts and fluctuations in the so-called open market are rare. An important factor in the coastal fuel oil market has been the large surplus of material available from the California fields. This surplus was responsible for a large decline in the California market early this year and its effect has been felt in the Gulf Coast and Atlantic Seaboard areas.

Along the Atlantic Seaboard a flat price of $1.75 per barrel was maintained on Grade C bunker oil practically all year. Since the first of November this price has been advanced to $1.85 per barrel. Fuel oil prices on the Gulf Coast have also recently advanced. This indicates that the coal situation as it applies to export business has had some effect in the demand for fuel oils resulting in the higher prices. Since export coal prices advanced it was logical for the coastal fuel prices to advance first.

Interior Market

Coastal fuels are not shipped far inland and the interior market is largely independent of outside conditions. For the territory east of the Rocky Mountains as far as the Ohio line and back 100 miles from the coast, the market is determined largely by conditions in the several refining areas which comprise the Mid-Continent Field, and the Central West consuming area.

In the Mid-Continent market the Oklahoma 24-26 fuel oil this year has fluctuated between a low of $1.20 and a high of $1.45. The average for the year so far has been $1.30. This average compares with $1.09 last year and 96 cents in 1924. Crude prices have been higher this year than last so that the percentage relationship between crude and fuel oil prices has been about the same.

Cause of Slump

The recent slump in the fuel oil market, including distillates, is generally explained as a development of the uncertainty which has existed regarding the crude oil schedules. Reductions in the latter have been expected for some time and this has no doubt had a bearish effect on fuel oil and distillate quotations as it has on practically all other refined products.

Another factor has been the expectation that there would be a shortage of fuel oils and distillates this fall and winter. It is known that many refiners stored considerable fuel oil and distillates during the summer months in expectation of higher prices later. Long heralded predictions in the oil business seldom materialize and the fuel situation so far this season has been an excellent example of that fact.

Many jobber buyers also filled their storage in expectation of higher prices. As a result there has been plenty of material available for current buyers and coupled with the crude situation conditions have been such that sellers were forced to reduce their prices.

This condition would probably have righted itself before the first of the year regardless of developments in the coal industry. There has been a large number of new distillate burner installations and it is certain that there will be a record demand for that product as soon as cold weather arrives.

In regard to the heavier fuel oils some believe that the peak prices around $1.40, which prevailed for some time, had a tendency to force some users to return to coal.

It is practically impossible to check these statements as to their accuracy. They are heard every time fuel oil in the Mid-Continent goes above $1.25. There is at all times considerable shifting from coal to oil and vice versa by many users but it has never been clearly established that this shifting was entirely responsible for the ups and downs of the fuel oil market.

It is true that while the general trend in fuel oil prices has been upward in the Mid-Continent since 1922, the opposite was true in coal from late in 1923 up until the recent advance. Coal operators in a desperate effort to improve their market during the past two years have been able to persuade many oil users to return to coal with low prices.

More Oil Used

Offsetting this loss for the oil industry has been a large number of new users of petroleum fuels, especially domestic consumers of distillates. At the same time the trend in refinery operations has been to reduce the amount of fuel oils produced from refinery operations. The operation of cracking processes has made large inroads on the amount of distillates and the heavier fuels offered the trade. Numerous instances can be cited where refiners handling the same amount of crude oil as formerly do not have from one-half to one-fifth as much fuel oil to offer the trade.

These refiners either charge their fuel oil direct to their cracking units or reduce it to secure gas oil for the same purpose. In either case very little fuel oil is sold. The fractions of crude formerly sold as distillates are also suitable for cracking stock and this has reduced the amount of that product offered the home burner trade.

Although stocks of fuel oils east of the

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COAL PRICES ADVANCING

Bituminous coal prices which experienced a slow rise during the summer and early fall months due to increased exports—a development of the British coal strike—have had a sensational advance during the past few weeks. Increased domestic demand as well as the export situation has been responsible for this rapid increase.

For the country as a whole the increase at the mines has amounted to more than 50 per cent since the middle of September. In some fields prices have more than doubled. How it has affected the refiners using coal in Kentucky is shown in a letter from a refiner who wrote: "Our purchasing agent tells me that the price of coal has more than doubled within the last two weeks. He tells me that we were buying nut and slack coal for $1 a ton f.o.b. mines during the month of August. In September he paid as much as $3 a ton. He tells me now that the price on the coal we are using is around $4.50 a ton and some coal mines are asking $5 a ton. With the freight added to this price we can burn oil more economically than we can burn coal and I am making arrangements to put our fuel oil burners back under our stills."

The coal situation points to a better market in fuel oils and distillates this winter and is the most important market development in several months. In this article conditions in regard to coal and fuel oils are discussed.

South America Now Big Factor in Oil

Transportation Costs to Atlantic Seaboard of United States Lower Than From Major Areas of This Country

By Michael O'Shaughnessy
Statement to Federal Oil Conservation Board

The continuation of the industrial life of the world on its present plans, as well as the safety of the $10,000,000,000 invested in the oil industry (outside of the oil fields) in the automobile and collateral industries, demands a greater certainty of an adequate supply of petroleum for future years.

Among the suggestions being discussed to accomplish this, perhaps the one of most immediate interest is the adoption of the gas or air lift method to increase the recovery of petroleum from known oil sands, beyond the 25 per cent of the total theoretical content, recoverable by present practice. This method consists in artificially supplying gas pressure in the sands when the natural rock or gas pressure has gone off. It is being tried out on a practical operating scale. A considerable increase in recovery is hoped for by its proponents, but it will require several years of operation over a wide area under varying conditions before its value and importance can be definitely demonstrated.

The suggestion of applying mining methods to the oil industry involves the investment of a huge amount of additional capital in the industry and years of labor, with results problematical. The sinking of shafts to depths as great as 8,000 feet, and cross cutting into the oil sands to drain them of oil that will not flow, is a proposition involving so much risk, labor, time and money, that it is not likely to be resorted to until other avenues of relief have been exhausted.

As to Shale Deposits

The shale deposits of the United States no doubt contain a measurable content of petroleum sufficient to maintain the present daily production of oil for a great many years, but the initial investment necessary to accomplish this —literally billions of dollars—is staggering.

Synthetic gasoline and substitutes are wild dreams of laboratory enthusiasts. This is a faint and mocking hope. Just imagine creating machinery and plants to produce materials to take the place of the 94,000,000 gallons of petroleum produced in the United States every day. Consider the labor and money required, in addition to the scrapping of the present investment in the oil industry.

In considering all of these proposals it should be borne in mind that the supremacy of petroleum as a light, heat and power producer, is largely due to its comparative cheapness. Any substantial increase in the price of gasoline would curtail consumption, seriously affect the automotive industry and the further development of aerial navigation. Any suggestions involving the scrapping of all or any substantial part of the present investment in the oil industry, and a further investment of billions, is no solution at all, as it would result in the raising of the cost of petroleum or a substitute to a figure that would eliminate them as a cheap source of heat, light and power.

South America Reserves

It seems hardly necessary to become excited over the comparative merits of these heroic measures when there are vast areas of semiproven and probable oil territory awaiting development outside the United States but economically adjacent thereto. The oil fields of South America offer the petroleum industry of the United States insurance for the future without altering the present methods of conducting the business and at a fraction of the cost of the mining method, or of utilizing the shale deposits. We purposely disregard Mexico as a factor in this discussion as the known fields in this country are being rapidly exhausted and the attitude of that Government toward foreign capital does not warrant the expenditure necessary to develop new ones.

The South American oil fields are now producing in six countries just under 200,000 bbls. of oil per day, 70 per cent of it lighter than 22 Baume gravity. This development covers a very wide range of operating conditions. Apparently insurmountable difficulties have been overcome by the pioneer companies. Oil field practice and transportation facilities have been standardized so that the large oil organizations of the United States can enter these fields with the major problems solved for them with no greater capital risk and with as good a chance of getting production as in wildcatting operations in the United States.

A fallacy assiduously fostered by that section of the American oil industry that persists in believing that the development of the South American fields constitutes a menace to our domestic production business is that the cost of transportation on oil from the South American fields is prohibitive. Now the facts in this matter will be illuminating. One-third of the motor vehicles registered in the United States are in the states of the Atlantic Coast, which consumes 80 per cent of the bunker oil and handles at least that proportion of the export business consuming a large part of the gas and fuel oil production. We will, consequently, compare transportation costs from North and South American oil fields to the Eastern Seaboard Charter rates for tankers as of the date of this writing are very high, but taking the normal average of 35 cents from Tampico to New York, comparison of transportation costs to New York Harbor is as follows:

Transportation Costs

	Per Bbl.
From Mid-Continent fields by pipeline	$.96
From Infantas fields in Colombia, 450 miles from the coast; pipeline 60 cents and tanker 35 cents	.95
From California	.90
From Mid-Continent fields by pipeline to Gulf Coast, thence by tanker	.87
From Talara, Peru	.75
From Tampico, gathering charge 15 cents, tanker 35 cents (exclusive of export tax)	.50
From loading stations inside Lake Maracaibo in Venezuela, including transshipment to ocean-going tankers outside	.50
From Trinidad	.40

Should Promote Development

In the face of these figures it is difficult to see how the American oil indus-

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RESERVES FOR AMERICAN OIL INDUSTRY

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Nov. 15.—The accompanying enlightening statement concerning the output of oil in South America has been filed with the Federal Oil Conservation Board by Michael O'Shaughnessy of New York. The statement will come before the oil board in connection with its consideration of foreign oil production and competition with the American industry.

"If we are to maintain our present standard of industrial life and civilization and extend them to remote parts of the earth, it is vitally necessary that we conserve in every possible way our known supplies of liquid fire and that we build up reserves for the future," says Mr. O'Shaughnessy.

On account of their accessibility, the South American oil fields are the logical areas in which the American oil industry should develop such reserves, according to Mr. O'Shaughnessy, who scouts as a faint and mocking idea that synthetic gasoline and substitutes are anything more than wild dreams of laboratory enthusiasts.

Mr. O'Shaughnessy quotes ocean rates on oil from Tampico to New York in comparison with the rates from the American oil fields to show that the latter are in excess of the rates from the foreign oil ports.

Gas Lift Reduces Paraffin Trouble

Marland to Build $75,000 Plant in Panhandle Field Following Successful Experiments

By C. D. Lockwood

AMARILLO, Tex., Nov. 13.—Paraffin troubles in the Texas Panhandle are to be greatly reduced and lifting costs therefore greatly lowered also through the use of the gas lift method, especially adapted to the peculiar conditions in Hutchinson County, according to engineers of the Marland Oil Co. of Texas, who have conducted an extensive series of experiments with several wells on their properties near Borger. On the strength of results obtained in these experiments the Marland Oil Co. has started construction of a 1,200-horsepower compressor plant on its Johnson-A lease in the south half of the northeast quarter of Section 20, Block Y, near Borger and it will probably be ready to start putting gas back into the producing horizon within 30 days. Ten or 12 wells on the Johnson-A property and the Whittenburg-A lease in the Mary Whitley Survey, just north of Section 20, are to be produced by gas lift to begin with, according to present plans, which call for enlargement of the plant to care for additional wells as soon as expedient.

Plant Cost $75,000

E. O. Bennett, production engineer of the Marland Oil Co., with headquarters at Fort Worth, outlined briefly to the American Institute of Mining & Metallurgical Engineers at Tulsa last month his experiments in flowing wells in the Panhandle with preheated gas. The announcement of this new plant which with the necessary power lines will cost in the neighborhood of $75,000, means probably a revolutionary change in lifting methods in the Panhandle. Residue gas from the company's gasoline plants will be used and that means additional conservation. This is highly important since the rock pressure in several parts of the Hutchinson County Field has declined alarmingly during the past two or three months. At the beginning of development the pressure was uniform at approximately 400 to 450 pounds. Now it is down to 300 pounds in several parts of the field and lower than that in some places.

Several companies have experimented with gas lift methods in the Panhandle but the Marland Oil Co. is the only one so far claiming any degree of success and backing it up with the expenditure of real money.

The new compressor equipment consists of six 200-horsepower compressors driven by 200-horsepower, 2,300-volt motors. The capacity is approximately 7,700,000 feet or gas at 300 pounds discharge pressure. This gas will be discharged from all compressors into a common "header" and dis-

Close-up of the gas heater in which steam coils raise the temperature of the gas to 225 degrees Fahrenheit.

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Gasoline Tax Administrators Organize

Representatives to Meet Annually. Discuss Model Laws, Administration and Fund Distribution

By Special Correspondent

ST. LOUIS, Mo., Nov. 13.—The North American Gasoline Tax Conference, represented by 27 states, gathered here to discuss intimate problems of assessment, collection and expenditure of oil taxes throughout the nation, was launched formally with the adoption of a constitution, election of officers and the promulgation of resolutions stating the new organization's aims and purposes.

Present were the gasoline tax administrators, collectors or auditors from 15 states west of the Mississippi and 12 states east, who met after a series of group meetings to perfect a permanent nation-wide organization embracing also Canada and Mexico. William McAtee, State Inspector of Oils of Missouri, who presided during the three days' sessions at the Hotel Statler in St. Louis, was elected president for the ensuing year. Columbus, Ohio, was selected as the next year meeting place.

Besides Mr. McAtee, the new officers are H. R. Parker, Department of Insurance and Revenue, Little Rock, Ark., secretary; Seth G. Wells, State Inspector of Oils, Topeka, Kans., treasurer; S. E. Naugle, Assistant Attorney General, Colorado, counselor, and the following vice presidents: Elbert D. Hayford, State Auditor, Augusta, Me.; Edward Martin, Auditor General, Harrisburg, Pa.; A. N. Bobbitt, Gasoline Tax Collector, Indianapolis, Ind.; T. W. Bass, Chief Gasoline Tax Division, Department of Agriculture, Lincoln, Neb.; W. J. Armstrong, State Inspector of Oils, Oklahoma City, Okla.; James Duce, State Inspector of Oils, Colorado, and H. E. Crockett, Secretary of State, Salt Lake City, Utah

Four major committees reported to the conference, their reports all unanimously adopted except one—that on exemptions and refunds—which was defeated by a two-to-one vote. Discussions were hot and spirited but the keynote prevailed that the oil industry should not be harassed. The committees were engaged in the most serious analysis of their problems.

Tax Rate

On "Tax Rate and Purposes" the conference held:

"The tax rate must be left to the respective states to be determined by the local necessity and conditions and that we recommend that no state apply a tax that would exceed the requirements of revenue for highway purposes in the state, and that in connection with other taxes and license charges on motor vehicles it would not be excessive. The purpose of the tax should be limited strictly to the need of the state for revenue for highway purposes and the revenue derived from the tax should be applied to the construction, maintenance, operation and administration of highways, highway structures and for the retirement of bonds, the proceeds of which have been used exclusively for highway purposes."

Administration Methods

The committee on Administration Methods made the following report:

1. That the administration of the gasoline tax laws be under a state officer or state board, either elective or appointive, and not under any local subdivision officer or officers.

2. That the tax be collected at the point of greatest concentration within the state and in such a manner as not to interfere with or be a burden upon interstate commerce.

3. That the amount of tax shall be measured by gallonage at the point of greatest concentration within the state.

4. That in the judgment of this committee there is a loss of gasoline in handling which is capable of identification.

CONVENTION ADDRESSES

The following addresses at the National Conference of Tax Administrators and Oil Inspectors will be found elsewhere in this issue:

	Page
A. J. Kraemer	42
James Duce	120
Edward Martin	136
W. S. Booton	137

5. That reports duly verified be made on or before the 15th day of each calendar month of the total number of gallons of gasoline sold or received during the preceding calendar month and that remittance for the amount of tax due accompany the report, and that the forms on which such reports are made be as uniform as possible under the laws of the different states.

6. That there be a fixed penalty for failure to make report or payment of tax.

7. That some provision be incorporated in gasoline tax laws protecting the state against loss from irresponsible dealers.

Inspection Problems

The Committee on Inspection Problems reported the following recommendations:

1. The work of inspection is necessary and advisable.

2. The following suggestions are made for provisions in new or amended laws: (a) In absence of state fire marshal or other department handling the matter, the powers be given to departments handling oil inspection to enforce reasonable safety regulations to reduce fire hazards in the industry. (b) Powers should be given to inspection departments to prevent the sale of worthless preparations purporting to be gasoline improvers, gasoline substitutes or carbon removers. (c) That all oil measuring devices should be under supervision of oil inspection departments, unless otherwise provided for by each of the several states. (d) All tests made by oil inspection departments should be made under conditions and with apparatus approved by Bureau of Mines, Department of Commerce. (e) Oil inspection department should be empowered to prosecute all instances of substitutions, or misbranding of all oils. (f) When any state provides sepcifications for gasoline or other motor fuel, these specifications should be made to conform to those issued from time to time by the United States Bureau of Mines, as nearly as local conditions warrant.

Adopted by unanimous vote of the conference as amended.

McAtee's Address

William A. McAtee, State Inspector of Oils of Missouri, as chairman of the National Conference of Gasoline Tax Administrators and Oil Inspectors, opened the sessions at 9 a. m. Thursday, November 11, in an address to about 75 of the early arriving conferees, outlining the scope and purposes of the meeting.

"The movement that has culminated in this conference," he said, "began last spring with the meeting in groups of a few states to consider some things that were mutual to the interests of states adjacent to each other. At the Joplin conference we discussed bootlegging and other troubles incident to border traffic in gasoline; at Hot Springs we branched out a little and talked about tax rates, refunds and other things; at Omaha the discussions broadened still further, and at Salt Lake City, where a two-day conference was held with forenoon and afternoon sessions, the range of discussions covered all subjects and phases of gasoline taxes, oil inspection and administration methods.

William A. McAtee

State Inspector of Oils, elected president of the North American Tax Conference

"We have now met in St. Louis, not

(Continued on Page 93)

Dr. Bergius Tells of Synthetic Fuel

Scientists at Big Coal Conference Feel Little Commercial Possibilities for Process Here Now

By Special Correspondent

PITTSBURGH, Pa., Nov. 17.—Synthetic oil products obtained by the Bergius process—the one to which special attention has been attracted in recent weeks—while of admitted importance in Germany and other countries without abundant natural oil resources, offer virtually no commercial possibilities at this time, will not for a decade and perhaps never will. This appears to be the consensus of opinion among American chemists and men in touch with the oil industry as expressed in discussion and comment following the reading of a paper here Monday afternoon by the inventor of the process, Dr. Friederich Berguis, of Heidelberg, Germany, before the International Conference on Bituminous Coal.

About 1,000 men, including scientists of note, from various parts of the United States and several foreign countries, are here for the conference which opened its four-day session in Carnegie Music Hall, Monday. Doctor Bergius was subjected to insistent and not altogether friendly questioning.

Greater Need in Europe

The need of artificial petroleum substitutes is a pressing one in Europe and the use of the Bergius process is widening there, said the speaker, who did not seek specifically to show that synthetic substitutes for petroleum could enter into competition with the natural products in this country so long as the oil resources are able to meet the growing demands upon them.

Dr. Friedrich Bergius

"The all-important question the world over is the most economical utilization and conservation of the specific raw material that Providence gave to each country," said Doctor Bergius. "Europe is not in the same fortunate position of the United States, with an oil supply which only a short time ago seemed to be inexhaustible. And yet the time may come sooner than anybody here can foretell when the decreasing natural oil supply of this country will not meet the ever-increasing demand any longer, when the United States will be up against the same problem we in Europe are facing today."

The Bergius Method

Doctor Bergius described his method, which briefly consists of making a thick paste out of crushed coal by mixing it with the heavy part of the oil from a prior operation. The material in this form is forced by specially designed pumps into high pressure vessels, in which the paste is heated together with the oil already contained in the vessel, to reaction temperature. Hydrogen is pumped in at the same side of the vessel which is equipped with a stirring rod.

The whole of the reaction mass—gas, liquefied coal, untransformed coal and ashes,—is drawn out of the vessel and

(Continued on Page 145)

Increasing Volatility of Motor Fuel

Research Work Covering Ease of Starting, Acceleration, Engine Performance, Use of Natural Gasoline Discussed

By George Granger Brown*

The motoring public is generally aware of the fact that ease of starting and acceleration are due largely to the more volatile components in gasoline.

"Detonation" was not recognized except as a carbon knock until about 12 years ago when more efficient fractionating equipment enabled the refiners to produce a greater quantity of gasoline from the crude oil. This product included more or less volatile material in the gasoline, and compelled the manufacturers of motor vehicles to heat the intake manifold by exhaust gases to prevent condensation of the fuel in the manifold and the accompanying poor engine performance. The less volatile fuel has a greater tendency to "knock" than the old antebellum fuel. This knocking tendency is still further increased by the heat supplied to the mixture to prevent condensation.

These facts are now generally recognised and most refiners are now supplying a more volatile gasoline than the U. S. Motor specification even in warm weather. The pendulum has reversed and refiners are now trying to produce the most volatile gasoline economically possible rather than the least volatile. This fact is probably due more to the demands of the motor car user for easy starting and good acceleration, even in cold weather, than to fluctuations in the kerosene market.

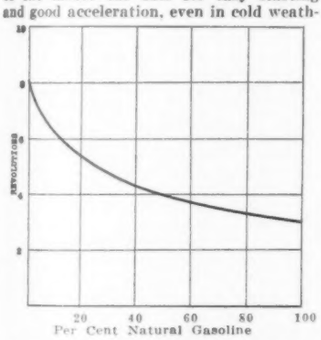


Figure 1—Revolutions required to start motor with various natural gasoline blends.

Increased Volatility

There are three possible methods of obtaining increased volatility:

1. In fractionating the crude, include only the more volatile components.
2. Continue the cracking process until the less volatile components are destroyed.
3. Blend with natural gasoline.

The first method decreases the yield of gasoline, and is therefore expensive and not to be recommended from the standpoint of conservation of our natural resources. Blending with natural gasoline increases the yield of gasoline and therefore tends to conserve our petroleum resources. It is also the simplest method of obtaining increased volatility, and is in many districts the most economical.

Antiknock Properties

In order to determine the antiknock properties of natural gasoline, three different samples of natural gasoline were blended with a straight-run Mid-Continent U. S. Motor gasoline. The knocking tendencies of these blends were compared with blends of benzol with the same U. S. Motor gasoline.

The results indicate that natural gasoline in blends with straight-run Mid-Continent gasoline containing up to about 50 per cent of natural gasoline, is about one-half to two-thirds as effective as benzol in eliminating the knock and that antiknock properties of natural gasoline increase with increasing volatility.

In blending natural gasoline with other blending stocks, different results are to be expected. Indications are that when

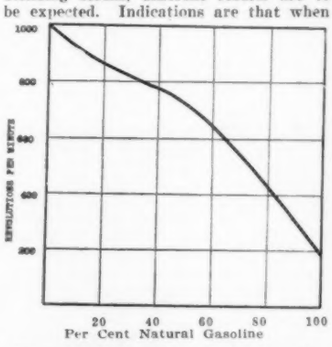


Figure 2—Minimum speed to prevent backfiring upon full opening of throttle.

natural gasoline from a field producing U. S. Motor gasoline with bad knocking qualities, is blended with U. S. Motor gasoline of good antiknock qualities, very little improvement in the antiknock quality is to be expected. Our program includes a complete investigation into the antiknock value of natural gasoline when blended with different U. S. Motor gasolines. These results will be reported later.

Starting and Acceleration

Starting may be divided into two phases. The first phase is that of getting the first explosion; the second phase, generally referred to as acceleration, is that of keeping the engine running after the first explosion has been obtained.

In order to get sufficient gasoline to form an explosive mixture for the first phase of starting, it is necessary to choke the carburetor. After the first explosion it should not be necessary to continue the choking for any appreciable period, because the continued use of the choke draws in excessive fuel, causing crankcase dilution and carbon formation.

It is possible to obtain the first explosion without any serious difficulty with almost any commercial motor fuel if the carburetor is equipped with a tight choke,

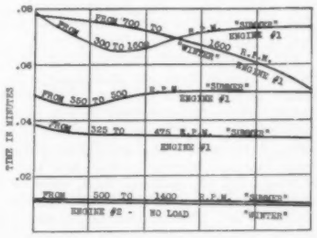

TIME IN MINUTES
.08
.06
.04
.02
FROM 700 TO 1600 R.P.M. "STARTER" ENGINE #2
FROM 300 TO 1600 "STARTER" 1600 R.P.M. ENGINE #1
FROM 550 TO 800 R.P.M. "STARTER" ENGINE #1
FROM 325 TO 475 R.P.M. "STARTER" ENGINE #1
FROM 500 TO 1400 R.P.M. "STARTER" ENGINE #2 - NO LOAD
20 40 60 80 100
Per Cent Natural Gasoline

Figure 3—Time required for acceleration when throttle is suddenly opened.

but it is practically imposible to keep an engine running without excessive choking in cold weather unless the fuel supplied is more volatile than the U. S. Motor specifications.

Figure 1 indicates the number of revolutions required to obtain the first explosion with U. S. Motor gasoline, and with blends containing different amounts of natural gasoline, when using a six-cylinder engine with an unheated manifold. There is a marked increase in case of starting as the volatility of the fuel is increased by the addition of small amounts of natural gasoline. Above 50 per cent of natural gasoline the increase in ease of starting is less.

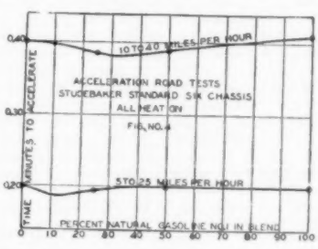
Cold Weather Acceleration

Figure 2 indicates the minimum speed in revolutions per minute at which the throttle can be opened to the full position without causing backfiring, with an unheated manifold as exists during the second phase of starting. It is evident from the data represented in Figure 2 that an increase in volatility is very necessary to prevent backfiring and engine stalling, when acceleration is attempted in cold weather with an engine not thoroughly warmed up.

In making tests on engines with different fuels, it is necessary that all adjustments and operating conditions be maintained constant throughout the series of tests. It is obviously impossible to maintain constant conditions while an engine is warming up, or to duplicate, with any degree of precision, the warming-up period on different days.

It was found that operating an engine at constant temperature, but with no exhaust heat on the intake manifold, that the warming-up period was reproduced in a satisfactory way for testing different fuels.

The tests reported below were made under two conditions of operation, equivalent to summer and winter service. The


TIME - MINUTES TO ACCELERATE
0.40
0.30
0.20
10 TO 40 MILES PER HOUR
ACCELERATION ROAD TESTS STUDEBAKER STANDARD SIX CHASSIS ALL HEAT ON FIG. NO. 4
5 TO 25 MILES PER HOUR
PERCENT NATURAL GASOLINE NOW IN BLEND
0 10 20 30 40 50 60 70 80 90 100

conditions representing summer operation were those of operating the engine in the laboratory at an atmospheric temperature of 80 degrees Fahrenheit and with the full exhaust heat on the manifold, or with heated air supplied to the carburetor according to standard practice. The temperature of the cooling water entering and leaving the engine block was maintained constant during the tests and at those values that are found to be the case during the warming-up period—that is, with the water entering the block at a temperature not more than a few degrees above the atmospheric temperature.

Warming-up Period

The tests representing the warming-up period during winter operation were made under constant conditions similar to those described above, except that the manifold was not heated by the exhaust gases. In these tests, the crank case oil was up to operating temperature, so that friction losses in the engine were not as great as exist in cold engine in winter operation, but the unheated manifold closely approximates the manifold temperature during the warming-up period in cold weather. As this is the most important factor, conditions of fuel supply were essentially similar to those existing during the warming-up period in cold weather.

Figure 3 indicates the results obtained from these tests as the time in minutes required to accelerate the engine from the first speed to the second speed given on the curves for the different blends tested.

In all of these tests, motor No. 1 is a six-cylinder, air-cooled, valve-in-head motor with automatic spark advance; motor No. 2 is a six-cylinder, water-cooled, valve-in-head engine; motor No. 3 is a six-cylinder, water-cooled ell-head motor, with automatic spark advance; motor No. 4 is a four-cylinder, water-cooled, valve-in-head engine, equipped with high compression pistons.

Motors 1, 2, and 3 supply all of the heat to the mixture by heating the intake manifold by exhaust gases. Motor 4

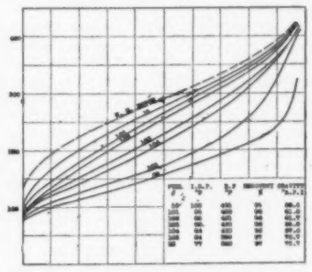


Figure 5—A. S. T. M. Assay Distillations.

has no heat on the manifold, but depends upon drawing hot air from over the exhaust pipe into the carburetor.

All adjustments to the carburetor and spark were made to give the maximum power with the U. S. Motor gasoline (No. 13), because no driver is going to readjust his carburetor according to the fuel purchased, and a fair test would not be obtained if the carburetor were readjusted for each fuel tested.

Actual road tests for acceleration were made with a standard chassis, six-cylinder, ell-head, water-cooled engine.

These tests were made by observing the time required to accelerate from 10 to 40 miles per hour and from 5 to 25 miles per hour, with a heated manifold, and all adjustments standard for ordinary gasoline. In order to eliminate any wind effect the tests were conducted by driving up and down a chosen section of level highway and averaging the results.

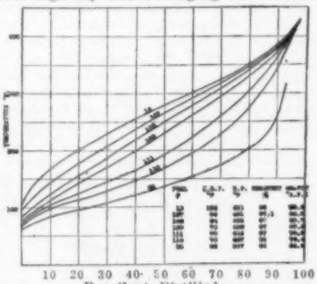


Figure 6—A. S. T. M. Assay Distillations.

The second and third columns of Table 1 and the curves of Figure 4 give the results of these tests.

Table 1

Percentage of Natural Gasoline No. 1 in Blend	Minutes to accelerate under warm weather conditions. Six-cylinder chassis—heat on manifold. 10 to 40 mi. hr.	5 to 25 mi. hr.
0	.400	.200
10	.387	.188
25	.355	.195
50	.390	.200
100	.410	.200

Results of Road Tests

The results of the road tests are exactly equivalent to those obtained in the laboratory, and indicate that a manifold heated by the full heat of the exhaust in moderately warm weather (atmospheric temperature of 60 degrees to 70 degrees Fahrenheit) a fuel volatility corresponding to that of a 30 per cent natural gasoline blend gives the best acceleration to

(Continued on Page 133)

*Paper read before the National Petroleum Marketers Association, Atlantic City, October 27. The paper was presented as a part of the research work being conducted by the Association of Natural Gasoline Manufacturers, Doctor Brown, of the Chemical Engineering Department of the University of Michigan, being in charge of the Association's research program.

Meaning of Government Specifications

Significance of Tests and Items in Standards Prescribed for Gasoline and Kerosene Requirements

By A. J. Kraemer*
Associate Petroleum Chemist, United States Bureau of Mines

Anyone whose work brings him in close relation to petroleum products, and the specifications for petroleum products, must be struck by the lack of knowledge by the "man in the street" of what are the items usually included in specifications for various petroleum products, and what is the significance of the several items.

Until comparatively recent there was not uniformity in Government specifications for petroleum products. Each purchasing agency was a law unto itself in regard to what should be required for purchase. This was confusing and probably acted to restrict competition for Government business to those who made a practice of keeping informed of the various requirements of Government purchases. As a result of conditions brought about at the time of the World War, President Wilson, under date of July 31, 1918, issued an order to the United States Fuel Administrator to prepare specifications for petroleum products, and to proceed to this end by means of a Committee on Standardization of Petroleum Specifications. The first bulletin of this committee, published in October, 1918, contained a specification for motor gasoline. This consisted principally of a distillation test and a general statement on quality. This is what has been generally known as the "Navy Specification," because it was originated by the Navy Department.

This specification was revised, effective November 25, 1919. This revision also contained only one test, namely the distillation range, and the requirements were made somewhat more lenient. In the revision effective December 29, 1920, published as Bulletin 5, a color requirement was included, but no numerical limit for the color was set, and no method of tests for color specified.

The Interdepartmental Petroleum Specifications Committee was formed under authority of the Bureau of the Budget November 8, 1921, as an agency of the Federal Specifications Board. This committee issued a group of specifications and methods for testing petroleum products, effective January 23, 1922, and amended March 1, 1922. This report did not revise the distillation requirement for motor gasoline in effect since November 25, 1919, but for the first time definite requirements in regard to color test and corrosion test appeared in the specification. This specification was issued as Bureau of Mines Technical Paper 305, and the methods for testing were published as Bureau of Mines Technical Paper 298.

U. S. Motor Gasoline

The next group specification for petroleum products was issued as revised October 31, 1922, as Federal Specifications Board Standard Specification Number 2. This was published as Bureau of Mines Technical Paper 323, and included specifications and methods for testing. There were two changes in the specification for motor gasoline: (1) The initial boiling point (first drop) was lowered from 140 degrees Fahrenheit to 131 degrees Fahrenheit. (2) The 90 per cent point was raised from 374 degrees Fahrenheit to 392 degrees Fahrenheit. Specification No. 2 was revised as No. 20, March 18, 1924, and published as Bureau of Mines Technical Paper 323A. In this specification an attempt was made to suppress the persistent practice of alluding to the Federal Specifications Board specification for motor gasoline as the "Navy Specification" and it was provided that "Gasoline purchased under this specification shall be described as 'U. S. Government Motor Gasoline' with the understanding that this specification always refers to the current specification of the Federal Specifications Board."

In Bureau of Mines Technical Paper 323-A a sulphur test by the lamp method was first introduced for motor gasoline. Otherwise this specification was identical with Technical Paper 323. This is the specification now in force, with the exception of the color requirement.

Table 1 summarizes in tabular form, the successive Federal specifications for gasoline, showing the changes in these specifications.

Table 1—Showing Changes in Federal Specifications for Gasoline

Test—	Oct. 2, 1918	Nov. 25, 1919	Dec. 29, 1920	Mar. 1, 1922	Oct. 31, 1922	Mar. 18, 1924
			—Date Effective—			
Color	.....	.....	white	16	16	*16
Corrosion	.....	.....	.....	neg.	neg.	neg.
Distillation—						
Initial	140°F.	140°F.	140°F.	140°F.	131°F.	131°F.
20%	221°	221°	221°	221°	221°	221°
50%	275° (45%)	284°	284°	284°	284°	284°
90%	356°	374°	374°	374°	392°	392°
Endpoint	428°	437°	437°	437°	437°	437°
Recovery	95%	95%	95%	95%	95%	95%
Sulphur	.....	.....	.....	.....	0.10%	0.10%
Published in	Bull. 1	Bull. 3	Bull. 5	Tech. Paper 305	Tech. Paper 323	Tech. Paper 323-A

*Deleted by Federal Specifications Board, March 9, 1926.

Details of the Specification

The specification for gasoline may be used as typical, for a discussion of the details of a specification. The descriptive title is followed by a general statement of the commodity involved, and how it is intended to be used. There are sometimes included general statements in regard to grades, or in regard to more or less indefinite qualities not satisfactorily covered in the details. The next section, "Properties and Tests," includes the meat of the specification. In the specification for U. S. Government Motor Gasoline, the first item under Properties and Tests is the following:

"Color—Method 10 11—The color shall not be darker than No. 16 Saybolt." This item has now been removed from this specification, but it is included in this discussion, for the reason that color is still a part of a number of specifications for gasoline. This requirement was deleted as a result of a recommendation by the United States Public Health Service, that all gasoline containing tetraethyl lead should be given a distinctive color as a safety precaution.

As a result of the investigations of tetraethyl lead gasoline, it was recommended that all such gasoline be colored distinctively and that enough dye be added to lessen the likelihood of using the gasoline for cleaning. It was also recommended that all mixing of gasoline with the tetraethyl lead fluid be done at refineries or large scale distributing stations, so as to have it done under the best conditions.

Several states have enacted legislation making the current U. S. Government specifications for gasoline official in the state, and making revisions of the Government specifications apply also in the local specification. For this reason it was necessary to reconcile the Surgeon General's recommendation with the specifications, and since it has been the opinion of many people for some time that the color requirement could be replaced by a more suitable one, the action of the executive committee of the Federal Specifications Board was taken upon the recommendation of the Technical Committee on Lubricants and Liquid Fuels.

It will be noted that in stating this requirement in regard to motor gasoline, and in the statement of the other items under Properties and Tests, the method of test is stated and the color limit is stated in definite terms. This course should always be followed in writing a specification for petroleum products. Statements that gasoline shall be "water white" or that kerosene "shall not flash below 100 degrees Fahrenheit," and similar statements, are not definite and invite controversy. Whenever a test is mentioned, the apparatus and method by which the test shall be carried out, should be described.

Corrosion Test

The next item in the motor gasoline specification has been the subject of considerable controversy. The statement in Technical Paper 323-A is as follows: "Corrosion Test — Method 530.21 — A clean copper strip shall not be discolored when submerged in the gasoline for three hours at 122 degrees Fahrenheit." The strict interpretation of this statement would act to reject a gasoline which would undoubtedly be entirely satisfactory from the standpoint of corrosion. The Technical Committee has under consideration a modification of this statement so that gasolines which show only a slight discoloration of the copper strip will be accepted. The object of this item in the specification is to exclude from Government purchase gasolines which are likely to be corrosive to metallic containers such as tanks, feed lines, carburetors, etc.

Distillation Range

The next item is the distillation range. Briefly this requires that the first drop shall fall into the receiver before the thermometer in the distillation flask reaches a reading of 131 degrees Fahrenheit; 20 per cent shall distill before a temperature of 221 degrees Fahrenheit is reached; 50 per cent shall distill under 284 degrees Fahrenheit; 90 per cent under 392 degrees Fahrenheit, and that the endpoint "shall not be higher than 437 degrees Fahrenheit." It is also required that "95 per cent shall be recovered as distillate in the receiver from the distillation." In this instance, as in the others, the apparatus and method by which the test shall be conducted is minutely described as Method 100.12.

The present standard for the distillation range was determined as a result of a study and analysis of a number of factors which naturally enter into the specification for a commodity which is as extensively used as motor gasoline, and which is produced in a number of ways, from a variety of raw materials. Questions of utility, supply, cost, industrial standards, and others, were carefully studied, and the specification is the result of the weighing of these influences. An unduly stringent requirement might act to restrict the number of bidders for Government contracts, and increase the cost of gasoline, without compensating increase in effective quality of the product. Although the Government does not wish to buy what the commercial purchaser rejects, it is also not desirable to write a specification in such terms that only products of a certain crude oil, or of a single method of manufacture will meet the requirements.

The "tailor-made specifications" should especially be avoided in setting up standards for general use, or use over a wide range of territory. The individual con-

(Continued on Page 122)

*Presented before National Conference of Gasoline Tax Administrators and Oil Inspectors, St. Louis, Mo.

MORE THAN 7,000,000 BBLS. CRUDE IN STORAGE IN TEXAS PANHANDLE

Three companies operating in the Texas Panhandle will have storage capacities of more than 2,000,000 bbls. each, and three others will have total capacities of more than 1,000,000 bbls. each when the tanks now under construction are completed, according to the monthly report for October, just compiled. The total steel storage built and building reached the high figure of 15,280,000 bbls. November 1.

The Magnolia Petroleum Co. leads with 2,660,000 bbls. of storage built or under construction. The Gulf Production Co. is second with 2,295,000 bbls. capacity, and Phillips Petroleum Co. (Bartex Pipe Line Co.) is third with 2,145,000 bbls. Then comes the Prairie Oil & Gas Co. with 1,705,000 bbls.; the Marland Oil Co. with 1,355,000 bbls.; and the Skelly Oil Co. with 1,155,000 bbls.

Stocks totaled 7,186,438 bbls. November 1, of which amount three companies had more than 1,000,000 bbls. each. These were the Magnolia Petroleum Co. with 1,829,116 bbls.; the Phillips Petroleum Co. (Bartex) with 1,300,411 bbls.; and the Gulf Production Co. with 1,245,642 bbls.

The steel tankage completed, exclusive of that under construction, totaled 9,265,000 bbls. November 1, leaving 2,078,562 bbls. of unfilled storage in the Panhandle.

Of the 4,637,910 bbls. included in the receipts for the month, the Marland Oil Co. led with 958,768 bbls., and the Phillips Petroleum Co. was a close second with 899,527 bbls. The Gulf Production Co. was third with 467,294 bbls.

Total receipts averaged 149,610 bbls. daily during the month of October and of this amount 91,157 bbls. was free oil and 58,453 bbls. was controlled oil, or that produced and run by the same company.

The Marland Oil Co. also led in deliveries and in tank car shipments. Marland's deliveries for October amounted to 819,472 bbls., the nearest rival having been Phillips Petroleum Co. with 451,496 bbls. Out of 9,986 tank cars shipped from the Panhandle during the month, Marland Oil Co. shipped 3,387 cars. The accompanying table of tank car shipments shows Phillips Petroleum Co. and Plains company shipments under the heading "Cars not accounted for" as part of the data on these companies was not available. The Phillips Petroleum Co., however, shipped 1,060 cars from Isom.

Prairie Oil & Gas Co. is storing Panhandle oil at Mexia, shipping it to the Pure Pipe Line, in which it owns a controlling interest at that place. Prairie has 240 U. T. L. X. tank cars in the Kings Mill to Mexia service and plans to ship 25 cars daily to that point.

During the week ended October 30, 2,557 cars were shipped from the Panhandle, of which 736 cars were from the Isom branch of the Santa Fe, as compared with 606 from Isom the previous week.

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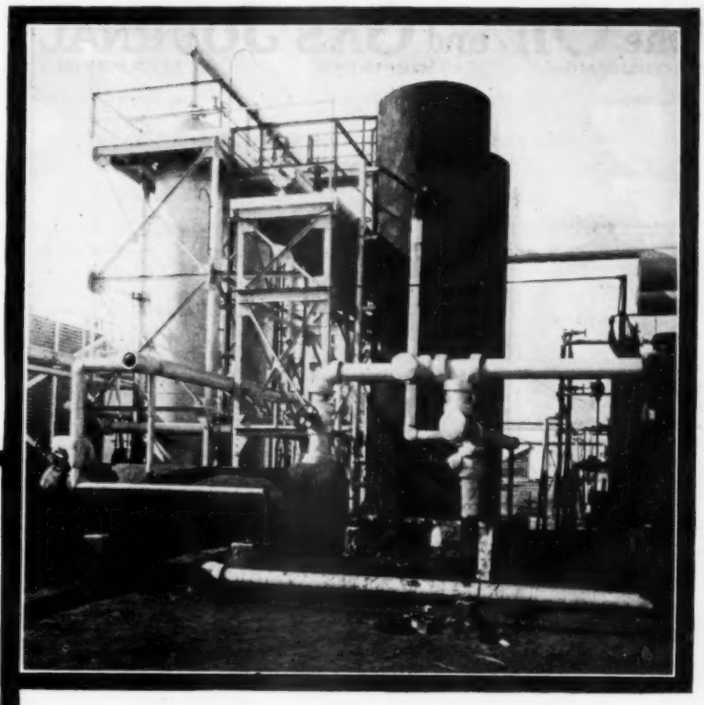
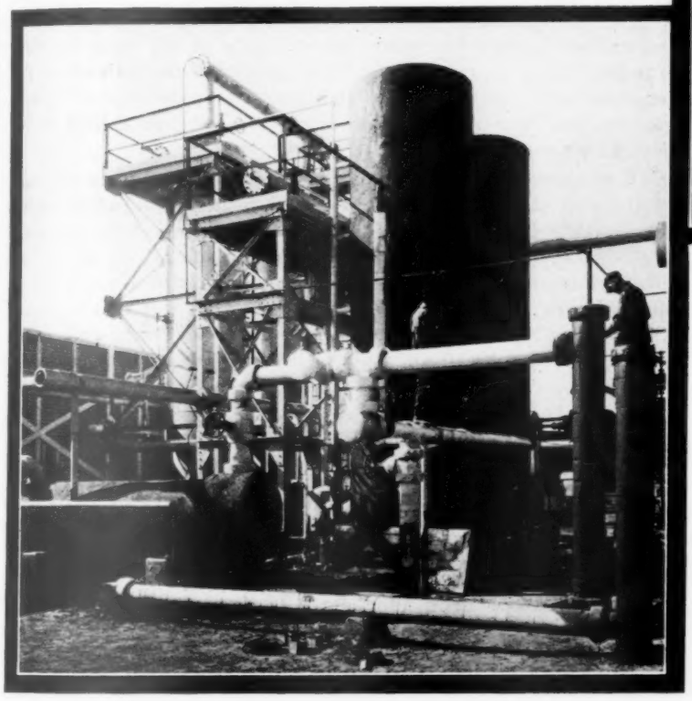
ANOTHER NEWTON PLANT PROVES ITS SUPERIORITY IN REFINERIES





TWO VIEWS OF THE TEN MILLION-FOOT STANDARD NEWTON PLANT INSTALLED FOR THE MID-CONTINENT PET. COMPANY, AT THEIR WEST TULSA REFINERY.

F. B. KOONTZ, *Supt.*

The Mid-Continent Petroleum Company, (formerly Cosden & Company) is another keen buyer of equipment whose judgment has been confirmed in their purchase of a Newton standard absorption plant. This ten million-foot plant, operating on approximately half that amount of gas, is producing *38,000 gallons of high grade gasoline per day.*

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The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

Published Weekly by
THE PETROLEUM PUBLISHING COMPANY
114-116 West Second Street
TULSA, OKLA.

Established as an International Publication in 1910 by Patrick C. Boyle

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TERMS OF SUBSCRIPTION
(By Mail, Postage Prepaid)

Single copies - - - - - - - -	$ .15	One year (in United States) - - -	$6.00
Three months - - - - - - - -	$2.00	One year (in Canada) - - - - -	$7.00
Six months - - - - - - - -	$3.00	One year (foreign countries) - - -	$7.00

ADVERTISING RATES ON APPLICATION
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CONFERENCE ON OIL TAXATION

The addresses at the national conference of gasoline tax administrators and state oil inspectors at St. Louis last week displayed under the chairmanship of State Oil Inspector McAtee of Missouri a fair attitude toward the oil industry and a desire for fuller cooperation between the industry and the officials charged with enforcement of the laws relating to it.

However desirable it might be to have a uniform tax on gasoline in all the states, mooted in connection with this meeting, it is extremely unlikely we shall reach it short of a maximum tax. The resolutions adopted by the conference state the best that can be expected: That the tax rate must be left to the respective states to be determined by local necessity and conditions, that no state apply a tax that would exceed the requirements of revenue for highway purposes and that in connection with other taxes and license charges on motor traffic it should not be excessive. It was emphasized also that the purpose of the tax and the expenditures therefrom should be limited strictly to the need for revenue for highways.

Where the tax is greater than used for highway purposes the car owner is taxed for general revenue beyond his fellow citizens, a flagrant injustice. The tendency unfortunately seems to be to increase the levy as much as the traffic will bear and when that point is reached presumably all the states will seek to attain it.

By that time, it is possible, the state legislatures may find this tax is not so popular as assumed, particularly if the tendency to use gasoline taxation for purposes other than road work continues.

So long as the public thinks the gasoline tax is being used to provide more and better highways and the price of gasoline remains low there may not be much popular protest, but should the cost of gasoline go up and more of the tax be diverted to general purposes by the states, reducing the amount expended upon highways, now only two-thirds of the total collected, there can hardly escape being a revulsion of popular sentiment and a demand for reduction of an oppressive tax burden.

It is a remarkable illustration of the prosperity of the American people that, with four of the more populous states exempted, they should have contributed this year over $210,000,000 in taxes on gasoline used in motor cars. Also that they should be submitting so patiently to the steady increase of that tax as state legislatures find they can pile it on.

But as the director of the excise division of Tennessee told the conference, they should beware of riding a free horse to death. The present popular passivity may turn quickly to active hostility if the legislators forget there is a limit to the tax rate or continue to spend the gasoline revenue for other purposes than the highways the people want.

If the gasoline tax is transformed into merely an addition to indirect general taxation, already too heavy, the storm may break.

The suggestion offered by State Treasurer Levitan of Wisconsin that an increase in gasoline tax rates may eventually take the place of all other forms of motor taxation did not appeal to the conference, but it is an idea that may spread. In New York the discussion on a proposed gasoline tax there is accompanied by efforts to have it replace or reduce the motor license fees. The danger is that this theory may be used to inflate the gasoline tax without any assurance that later the car license fees may not be restored or increased to their former figure. A tax once imposed is mighty hard to get rid of. There is always the precedent for returning to it, just as when a beginning was made with the 1-cent gasoline tax there is no likely limit to it short of the ability of the people to pay it.

The enormous expansion and misuse of this levy is an example of the fact stated by one speaker that hitherto prejudice rather than intelligence has tinctured legislation relating to the oil business. The tax levying bodies very cleverly made use of this prejudice to impose a tax on gasoline with public acquiescence based on the notion that it would hit the oil industry. The fact that it proved a boomerang and hit the public is even today but dimly understood although the public is going down directly into its own pocket to pay the tax.

There is more popular agitation over a necessary 1-cent advance in the cost of gasoline than in the imposing of a 3, 4 or 5 cents a gallon tax by the legislature.

The recommendation adopted unanimously by the conference that all tests by the oil inspection departments of the several states be made under conditions and with apparatus approved by the United States Bureau of Mines is a long stride forward.

Several states have adopted the specifications of the Federal Specifications Board as explained by A. J. Kraemer of the Bureau of Mines in his address, but here also uniformity is desirable.

Inspector Duce of Colorado put it very plainly, saying oil inspection should not be in position to dictate to anyone what he should buy or sell but to see that no fraud took place.

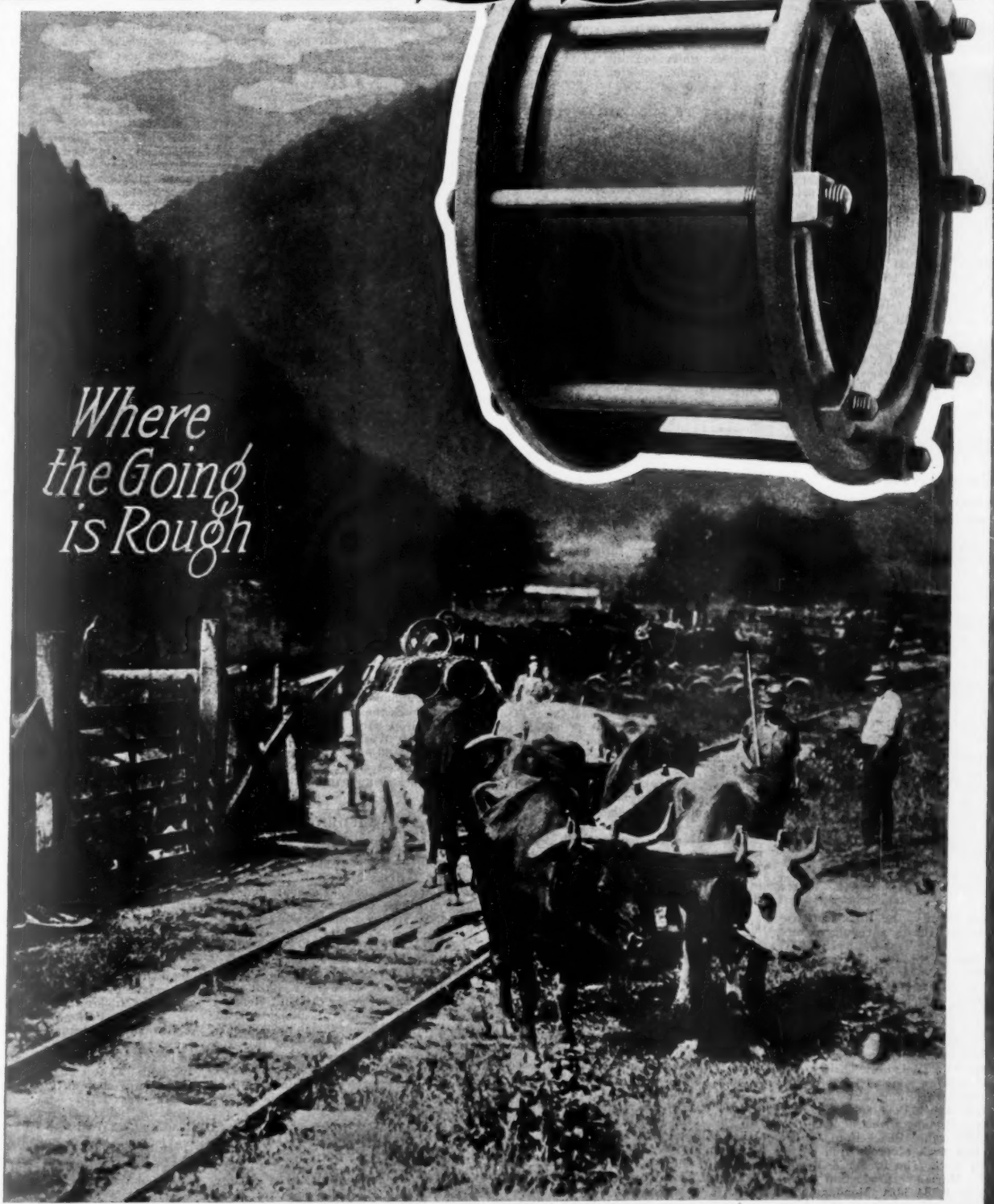
Specifications adopted by some states in prejudice against the oil industry work injustice to both the industry and to the consumers. Uniformity in this matter should be attainable by scientific means and does not involve the revenue needs of the states as with the gasoline tax.

The co-operation of the industry is asked and will no doubt be offered fully. In the past many states have proceeded on the theory apparently that the less the oil industry was consulted the better, another exhibit of persistent prejudice.

Mr. Kraemer's explanation of the manner in which the Federal specifications were framed and amended to meet changing conditions should give the state inspectors a clearer understanding of the subject and send them home to their respective states as missionaries for uniform specifications.

It is true, as Inspector Duce said, that no greater service to the public and the industry could result from the St. Louis conference than the formulation of some plan for getting together all interested so they could arrive at an agreed specification for the fuel to be sold as gasoline and then bring all the influence possible upon all state legislatures to induce them to adopt such specifications and at the same time have some power to modify this specification when in the opinion of some national authority conditions render such modification advisable.

DRESSER



COUPLINGS DOMINATE

Second Jones County Well 658 Bbls.

Roxana Completes Two in Upton County, One 800 Bbls., Other 45 Bbls. an Hour. New Shackelford Record Likely

By C. D. Lockwood
Staff Correspondent, North Texas Fields

FORT WORTH, Tex., Nov. 15.—The second Jones County producer held most of the attention in the North and West Texas District during the past week. Midwest Exploration Co. had the honor of bringing in the first well in the Noodle Creek area since the Phillips Petroleum Co. discovered the field. The Midwest producer is a diagonal southwest offset, No. 1 Thornton, in the NE cor. SE, Section 18, Block 19, T. & P. Survey. It topped the pay at 2,505 feet and at a depth of 2,511 feet flowed 512 bbls. in the first 17 hours from 3 p. m. Saturday to 8 a. m. Sunday. The following 24-hour gauge ending at 8 a. m. Monday showed 658 bbls., testing 39.6 degrees gravity. The 6-inch in this well was set at 2,463 feet. Phillips Petroleum Co.'s No. 1 Winters, the discovery, averaged 628 bbls. last week. It swabbed 746 bbls. Sunday. Phillips' No. 1 Tessie (formerly known as No. 1 Walling will probably be the next well to hit the pay as it was drilling at 2,420 feet Monday morning. Phillips' No. 2 Winters is being drilled with electricity.

NORTH CENTRAL TEXAS

Estimated Production, Week Ended Nov. 13

Ranger District—	This Week	Last Week
Brown County	13,150	13,170
Callahan County	4,110	4,100
Coleman County	1,620	1,630
Comanche County	1,710	1,725
Palo Pinto County	390	400
Ranger	5,730	5,776
Shackelford County	8,985	8,910
Stephens County	11,800	12,140
Total Ranger district	47,495	47,850
Wichita Falls District—		
Electra	17,260	17,500
Burkburnett	11,240	11,650
Iowa Park	4,580	4,700
Archer County	33,280	34,780
Clay County	750	745
Wilbarger County	13,965	13,875
Montague County	10,690	9,930
Young County	8,200	8,480
Jack County	410	245
Throckmorton County	1,680	1,720
Baylor County	110	125
Cooke County	790	735
Total Wichita Falls district	102,955	104,485
West Texas District—		
Big Lake Field	30,355	30,055
Crane County	5,480	5,950
Crockett County	1,030	1,120
Garza County	5	7
Howard County	810	710
Jones County	630	680
Mitchell County	3,640	3,650
Scurry County	55	48
Upton County	12,700	12,220
Total West Texas district	54,705	54,440
Grand total	206,155	206,775
Decrease	1,620	

In Upton County, the Roxana Petroleum Corp. brought in a couple of nice producers on their Hughes lease in T. C. Jones Survey No. 100. One was good for 800 bbls. and the other was making 45 bbls. an hour, neither having any water trouble, which is remarkable for that particular district.

In Brown County, Henshaw and others' No. 3 Lowe, located on the west line of Section 622, George Stubblefield land, in the Fry Pool, near Thrifty, was flowing 30 bbls. an hour at 1,320-31 feet. It had 1,000,000 feet of gas at 1,310 feet.

The Cook Ranch Pool, in Shackelford County, is still going strong and the pool will probably cause Shackelford County to set a new peak of production during the coming week. The Roeser & Pendleton and Marland production there amounted to 9,134 bbls. Monday morning and the total output of this property, exclusive of the Humble Oil & Refining Co.'s lease and some other production, was 1,136,398 bbls. from last February 18 up to November 1. Of this amount, Roeser & Pendleton's net production was 752,133 bbls., most of which brought $2.68 per barrel. The gasoline plant on this property is being enlarged from six units to nine units and an auxiliary unit, making the capacity when completed about 18,000 gallons daily.

WEST TEXAS COMPLETIONS

Fisher County

Ideal Oil Co.'s No. 1 W. F. Martin, Section 113, Block 1, T. & R. C. Survey, is being plugged and abandoned at 3,495 feet.

Reagan County

Big Lake Oil Co.'s No. 90 University pumped 125 bbls. initially from total depth of 2,438 feet. Roxana Petroleum Corp.'s No. 1 Boyd, in Section 15, Block F, University land, was plugging to abandon at 3,174 feet.

Sterling County

The Exploration Co.'s No. 1 C. A. Broome was plugging to abandon at 3,202 feet.

Taylor County

Sanger Oil & Refining Co.'s No. 2 R. E. Anderson was dry and abandoned at 2,290 feet.

Upton County

Dixie Oil Co.'s No. 9 Burleson was plugging to abandon at 2,350 feet, where it encountered salt water.

Marland Oil Co.'s No. 3 Estep pumped 100 bbls. at 2,321 feet. No. 6 Estep flowed 1,235 bbls. of oil and 75 bbls. of water initially at 2,335 feet. Roxana Petroleum Corp.'s No. 2 Hughes found the first pay at 2,115 feet and the second at 2,160 feet. It flowed 798 bbls. initially, with no water, through a ½-inch choke; No. 4 Hughes topped the first pay at 2,049 feet and the second at 2,145 feet and flowed 45 bbls. an hour with no water; No. 3 Estep topped the pay at 2,356 feet and flowed 60 bbls. the first day. The Texas Company's No. 5 King topped the pay at 2,102 feet and total depth is 2,156 feet. It was shot with 80 quarts at 2,108-50 feet and flowed 217 bbls. by heads. Texas Pacific Coal & Oil Co.'s No. 4 Sherk pumped 25 bbls. at 2,122-2,203 feet.

NORTH CENTRAL TEXAS COMPLETIONS

Archer County

Atlantic Oil Producing Co.'s No. 8 Oldham made 5 bbls. at 1,060-68 feet. Bridwell & Heydrick's No. 3 Abercrombie & Taylor-B swabbed 225 bbls. at 1,321-28 feet, total depth 1,350 feet. L. T. Burns' No. 3 Turbeville pumped 15 bbls. of oil and 5 bbls. of salt water at 1,515-22 feet. Continental Oil Co.'s No. 4 Kemp & Kempner, in Block 63, was abandoned as dry at 1,797½ feet. It had tested 2 bbls. of oil and 40 bbls. of water at 1,793½-97 feet.

T. F. Hunter's No. 1 fee was estimated good for 100 bbls. at 1,640-44 feet and was put on the pump. Jesse Lincoln's No. 1 Hudson had dry sand at 1,144-48 feet and oil sand at 1,370-75 feet. The latter yielded 20 bbls. of oil and 300 bbls. of salt water and the hole was being plugged back. Magnolia Petroleum Co.'s No. 26 Lowe made 124 bbls. at 1,291-1,301 feet.

Marland Oil Co.'s No. 10 Turbeville pumped 35 bbls. of oil and 5 bbls. salt water at 1,485-1,515 feet; No. 6 Thomas-B was estimated a 15-bbl. well at 1,178-85 feet. Moore & McVelia's No. 1 Abercrombie & Taylor was dry and plugged at 1,436 feet. Murchison & Fain's No. 6 Logan-B made 25 bbls. initially at 1,113-28 feet.

Pandem Oil Corp.'s No. 6 Hudson made 25 bbls. at 1,152-56 feet. Petroleum Producers Co.'s No. 8 Turbeville had a small showing of oil at 1,502-08 feet but bailed salt water and was drilling at 1,546 feet. Riner & Bailey's No. 1 Parkey pumped 18 bbls. at 1,590-92 feet. Roxana Petroleum Corp.'s No. 8 Abercrombie & Taylor swabbed 325 bbls. the first 21 hours at 1,337-56 feet.

Shappell Oil Co.'s (formerly Plains Production Co.'s) No. 4 Turbeville-A pumped 55 bbls. at 1,505-21½ feet; No. 5 pumped 62 bbbls. at 1,493-94 and 1,499-1,514 feet; Simms Oil Co.'s No. 11 Turbeville-A pumped 100 bbls. at 1,498-1,533 feet; No. 12 was dry and abandoned at 1,549 feet. The Texas Company's No. 2 Turbeville-B pumped 22 bbls. at 1,485-90 feet; No. 14 Turbeville-C swabbed 120 bbls. and pumped 85 bbls. at 1,497-1,521 feet; No. 16 Turbeville-C swabbed 250 bbls. the first 15 hours at 1,504-25 feet. Tidal Oil Co.'s No. 1 Henderson was dry and plugged at 1,850 feet; No. 2 Turbeville swabbed 200 bbls. and pumped 150 bbls. at 1,510-20 feet. Trahan and others' No. 1 Netherton was a failure at 1,609 feet. Lee Wilson's No. 2 Prideaux made 30 bbls. at 608-22 feet.

Brown County

Amerada Petroleum Corp.'s No. 4 J. H. Fry produced 100 bbls. the first 12 hours from sand at 1,302-09 feet. Barkley & Conway's No. 7 Allen swabbed 20 bbls. at 1,152-60 feet, total depth 1,163 feet. J. S. Cosden's No. 1 Arledge pumped 205 bbls. at 1,240-61 feet. Curry & Moore's No. 4 Pickett was estimated good for 10 bbls. while cleaning out sand at 1,278-85 feet following a 15- quart shot. Total depth is 1,302 feet. Gillman and others' No. 1 Perry was shot with 20 quarts at 1,276-94 feet and made 65 bbls. Huber and others' No. 1 Kuteman pumped 10 bbls. of oil and 60 bbls. of water at 1,209-15 feet.

William Lester's No. 8 Fry made 292 bbls. at 1,308-15 feet. McKenna and others' No. 10 Foster had sand at 1,199-1,206 feet, total depth 1,213 feet, and after a 10-quart shot made 10 bbls. Magnolia Petroleum Co.'s No. 5 Fry pumped 250 bbls. at 1,310-22 feet.

The location was abandoned for Phillips Petroleum Co.'s No. 6 Prater. The Texas Company's No. 1 Pugh was estimated good for 100 bbls. at 1,321-24 feet. Wentz Oil Corp.'s No. 2 Shore made 220 bbls. at 1,314-26 feet. Wilson and others' No. 2 Stone was completed for 750,000 feet of gas at 1,207-34 feet, total depth 1,252 feet.

Holliday and others' No. 1 Tabor was dry and abandoned at 800 feet. Shadbolt & Creighton's No. 1 Coppie was also a duster at 1,365 feet.

Cooke County

Roxana Petroleum Corp.'s No. 1 Hyman, previously reported as producing, is not on the production list as yet, having only 125 feet of oil in the hole after a 10-quart shot at 1,165-80 feet. Total depth was 1,310 feet before plugging back to 1,265 feet. The first shot was placed at 1,257-63 feet.

Vacuum Oil Co. and Big Indian Oil & Development Co.'s No. 1 Kitchens had a sandy shale showing oil at 3,522-38 feet and was cementing 6-inch casing at 3,471 feet, total depth 3,540 feet.

Eastland County

Arkansas Fuel Oil Co.'s No. 7 Connellee swabbed 40 bbls. after a 10-quart shot at 1,229-47 feet; No. 4 Lyerle was shut in temporarily as a gasser good for 3,000,000 feet at 1,398-1,412 feet.

Arnold and others' No. 1 Rose was

THREE QUIT FLOWING IN SEMINOLE; PRAIRIE WELL ESTIMATED 12,000 BBLS.

Some disappointments were reported from the Seminole Field in Oklahoma early this week. The Tidal-Osage Oil Co.'s No. 2 Harjo found 5 bailers of water at 4,230 feet. The Independent-Garland's No. 2 Fixico, which had been making 7,700 bbls. went dead, possibly from the sand being clogged after being pinched in and may be revived by cleaning. The Barnsdall's No. 2 Carter, and Tidal-Osage's No. 1 Fixico quit flowing.

The Gypsy company's well, west of Seminole, flowed 2,605 bbls. Monday. The Prairie Oil & Gas Co. extended the limits of the field to the west with No. 1 Strothers, which was making 400 bbls. an hour and was thought capable of 12,000 bbls. if allowed to flow free.

There was a decline of 10,700 bbls. in Spindletop production and Gulf Coast output was off 8,604 bbls.

In California, Huntington extension is though near its peak as it is approaching the limit in development work. The plans for deeper drilling may result in some large initial output. The Marland company completed two at Seal Beach, one 100-bbl. an hour well and one 75 bbls. hourly.

The Shift Tail Lake area in Caddo Parish, Louisiana, reported a completion by the Gulf Refining Co., making 390 bbls. and one by The Texas Company starting at 255 bbls.

Rycade Oil Corp.'s wildcat in Maverick County, 17 miles east of Eagle Pass, Tex., blew in as a big gas well.

Jones County, in west Texas, completed a second producer, the Midwest Exploration Co.'s No. 1 Thornton, offsetting the discovery well, flowing 658 bbls. of 39.6 gravity oil.

The Roxana corporation has a producer making 800 bbls. and one making 45 bbls. an hour in Upton County, Texas.

Texas Panhandle production was up 2,-bbls., although the average per well shows a further drop. Gulf Production Co. completed No. 9 Whittenburg-A, flowing 2,-765 bbls. of 36.7 oil. Its Bush well, 6 miles northwest of Amarillo, in Potter County, picked up salt water and was abandoned.

CALIFORNIA

LOS ANGELES, Calif., Nov. 16.—Marland Oil Co. finished No. 3 Bixby and No. 4 Bixby at Seal Beach, the former doing 100 bbls. an hour and the latter 75 bbls. an hour, from 4,480 feet and 4,468 feet respectively.

LOUISIANA

SHREVEPORT, La., Nov. 16.—In the recently opened area near Shift Tail Lake in Caddo Parish, the Gulf Refining Co.'s No. 1 Wemple, Section 14-20-15, was bailed in Monday making 390 bbls. of 27.2 gravity oil from sand at 2,208 to 2,217 feet. The Texas Company's No. 3 Curtis, in the same section, was bailed Monday and started off making 255 bbls. of clean oil from 10 feet of sand topped at 2,202 feet.

SOUTHWEST TEXAS

SAN ANTONIO, Tex., Nov. 15.—Rycade Oil Corp.'s No. 1 Chittim in Maverick County, 17 miles east of Eagle Pass, at 5,300 feet, after bailing some oil, blew out Sunday as a big gas well and is closed in waiting for additional material. The boiler is being moved back from the well and preparations made to complete it. The well is a pure wildcat with no

(Continued on Page 160)

dry and abandoned at 3,920 feet. Barkley & Crotty's No. 1 Hill was also a failure at 3,675 feet. Hickok Production & Development Co.'s No. 1 Owens and others was another duster at 3,885 feet. Lewis and others' No. 1 fee made 7 bbls. from lime at 3,168-3,200 feet, total depth 3,240 feet.

Three other dusters were: Murchison & Fain's No. 1 Continental Bank estate, at 1,703 feet; Pettit & Adkinson's No. 1 Harrell at 1,800 feet, and Texas Fidelity Oil Corp.'s No. 1 Walker at 1,705 feet. Teatsworth and others' No. 1 Johnson was completed for 7,000,000 feet of gas at 1,790-1,802 feet.

Jack County

Buttram Petroleum Co.'s No. 3 C. K. Cullers made 85 bbls. at 2,086-94 feet.

Montague County

Cato Oil Co.'s No. 3 Rolls estate flowed 96 bbls. at 831-58 feet. Continental Oil Co.'s No. 5 Jones made 45 bbls. at 832-56 feet; Continental Oil Co. and Johnson's No. 3 Maddox made 23 bbls. at 850-63 feet. Continental Oil Co.'s No. 17 Rowland made 70 bbls. at 1,076-99 feet, total depth 1,104 feet; No. 5 Rowland-B pumped 252 bbls. from sands at 1,061 to 1,161 feet.

F. H. E. Oil Co.'s No. 5 Howard-B produced 35 bbls. from broken sand at 1,338-77 feet. Olean Petroleum Co.'s No. 9 Maddox made 63 bbls. at 846-67 feet. Pure Oil Co.'s No. 1 Jones B-1 was abandoned at 2,795 feet; No. 3 Maddox-D made 81 bbls. at 846-60 feet; No. 4 Rowland-B made 186 bbls. at 1,055-64 feet; No. 5 Rowland-B had broken sand at 1,062-1,103 feet and sandy shale at 1,103-30 feet, good for 20 bbls.

The Texas Company's No. 26 Gist-A pumped 27 bbls. from sandy lime at 888-91 feet and sand at 891-98 feet; No. 3 Howard-B made 32 bbls. at 1,361-67 and 1,370-77 feet, total depth 1,380 feet; No. 2 Maddox-B made 48 bbls. at 2,083-87 feet; No. 2 Maddox-B made 48 bbls. at 2,083-87 feet; No. 2 Maddox-D swabbed 158 bbls. at 888-905 feet; No. 27 Oldham pumped 37 bbls. from broken sand at 1,046-1,106 feet; No. 32 Oldham made 120 bbls. at 1,353-67 and 1,371-75 feet; No. 2 Salmon-B made 10 bbls. at 907-20 feet.

Shackelford County

Amerada Petroleum Corp.'s No. 2 Cook was spraying oil with 2,500,000 feet of gas at 1,305-08 feet and pulling big pipe. Heck and others' No. 4 Reynolds pumped 25 bbls. at 1,227-30 feet, total depth 1,288 feet. Humble Oil & Refining Co.'s No. 14 Cook pumped 200 bbls. at 1,314-25 feet, total depth 1,338 feet.

Roeser & Pendleton and Marland Oil Co.'s No. 4 Cook A-60 flowed 1,135 bbls. at 1,245-75 feet; No. 3 Cook D-60 was making 12,000,000 feet of gas and spraying oil at 1,115-23 feet; No. 5 Cook B-61, Roeser & Pendleton full interest, was estimated good for 50 bbls. on the pump at 1,326-32 feet. Wentz Oil Corp.'s No. 2 Proctor was dry and abandoned at 2,204 feet.

Stephens County

Atkinson & Sandefer's No. 2 Williams was dry and abandoned at 3,555 feet. Barkley & Conway's No. 1 Bradford made 190 bbls. initially with 5,000,000 feet of gas at 1,942-2,011 feet, total depth 2,012 feet; No. 1 Pratt was spraying oil along with 19,000,000 feet of gas at 1,932-2,013 feet, total depth 2,040 feet. J. L. Thompson's No. 1 Hefley was completed as a 7,000,000-foot gasser at 1,950-66 feet, total depth 2,015 feet.

Wichita County

Baldwin and others' No. 1 Ward & Todd swabbed 70 bbls. at 1,832-85 feet. Bridwell & Heydrick's No. 2 fee swabbed 60 bbls. at 1,866-87 feet; No. 12 Ward & Todd pumped 75 bbls. at 1,859-87 feet. Continental Oil Co.'s No. 2 Chilson-A pumped 10 bbls. at 1,173-85 feet.

Hereford Oil Co.'s No. 5 Allingham-A had oil sand at 1,385-88 and water sand at 1,388-90 feet and pumped 10 bbls. of oil and 40 bbls. of water. Hawkins, Hester and others' No. 2 Marshall was dry and abandoned at 2,003 feet. Humble Oil & Refining Co.'s No. 1 Kemp & Kempner-F pumped 2½ bbls. of oil and 15 bbls. of salt water at 1,797½-98 feet. Leath and others No. 1 Fassett was dry and plugged at 1,855 feet.

Magnolia Petroleum Co.'s No. 19 Viles made 25 bbls. at 1,551-53 feet; No. 23 Ramming-B pumped 2½ bbls. at 1,554-83 feet. John O'Neil's No. 26 Rio Bravo pumped 25 bbls. at 1,388-92 feet. Red River Oil Co.'s No. 40 Bywaters pumped 27 bbls. at 1,775-85 feet. Ryan Petroleum Co.'s No. 87 Nance was dry and abandoned at 933 feet. Simms Oil Co.'s No. 7 Dutton pumped 50 bbls. at 1,160-80½ feet.

Virginia Oil Association's No. 26 Burnett was junked and temporarily abandoned at 1,545 feet. White Brothers' No. 5 Mitchell-B had oil sand at 1,518-19 feet, sandy lime at 1,519-20½ feet and at total depth of 1,527 feet pumped 105 bbls.

Wilbarger County

Empire Gas & Fuel Co.'s No. 51 Stephens was dry and plugged at 2,107 feet. Humble Oil & Refining Co.'s No. 16 Waggoner-H pumped 75 bbls. at 2,410-25 feet; No. 7 Waggoner-M was estimated at 50 bbls. at 2,322-49 feet, total depth 2,351 feet; No. 2 Waggoner-N swabbed 180 bbls. at 2,405-30 feet; No. 3-N swabbed 125 bbls. at 2,413-25 feet; No. 4-N swabbed and flowed 200 bbls. at 2,415-30 feet.

Milham Corp.'s No. 6 Waggoner-B pumped 50 bbls. at 2,543-52 feet. Phillips Petroleum Co.'s No. 12 Waggoner-D swabbed 53 bbls. at 1,877-1,905 feet, total depth 1,907 feet; No. 5-A Waggoner-L had lime at 2,283-85 feet and sand at 2,318-23 feet, total depth 2,390 feet and was swabbing 250 bbls.; No. 4 Waggoner-HH swabbed 180 bbls. from lime at 2,301-05 feet, total depth 2,333 feet; No. 1 Waggoner-JJ swabbed 197 bbls. from sand at 2,415-20 feet; No. 7 Waggoner-NN swabbed 200 bbls. at 2,274-92 feet, total depth 2,297 feet; No. 14 Waggoner-QQ pumped 15 bbls. at 1,920-40 feet. Wanderer Oil Co.'s No. 1 Smith was dry and abandoned at 3,011 feet.

Young County

Atlantic Oil Producing Co.'s No. 11 Rachuig-B made 42 bbls. at 1,163-68 feet. Roxana Petroleum Corp. and Consolidated Oil Co.'s No. 1 Logan was dry and plugged at 1,304 feet. Schermerhorn Oil Co.'s No. 2 Prideaux was a duster at 560 feet. The Texas Company's No. 20 Beardon swabbed 190 bbls. at 1,055-85 feet. Wichita Production Co.'s No. 2 Benson made 25 bbls. at 1,084-87 feet. Nance & Lucas' No. 3 Boozer was temporarily abandoned.

New Locations

Following are some new locations announced this week in West Texas:

In Borden County, Julian Petroleum Corp. and R. W. Penn's No. 1 A. J. Long, C NE NE, Section 10, Block 30, Township 4 north, T. & P. Survey.

In Crane County, Magnolia Petroleum Co.'s No. 3 O'Keefe, 330 feet from the north line and 990 feet from the west line of Section 38, Block 30, University land. McMan Oil & Gas Co.'s No. 1 Hughes, 330 feet from the south and west lines E half NW, Section 88, Block X, C. C. S. D. & R. G. N. G. Survey. Simms Oil Co.'s No. 1 E. S. Hughes, 330 feet from the south and west lines W half Section 88, Block X.

In Mitchell County, Riley & Donnelly's No. 1 R. H. Crump, 330 feet from the south line and 2,310 feet from the west line of Section 91, Block 27, Township 1 south, T. & P. Survey.

In Taylor County, Gibson & Johnson's No. 1 Haines & Hamilton, 330 feet from the north and east lines W half SE. Section 38, Block 19, T. & P. Survey. Noodle Creek Oil Co.'s No. 1 Alice Rose, 330 feet from SW cor. NE Section 29, Block 19, T. & P. Survey.

In Jones County, World Oil Co.'s No. 1 A. W. Clark, 330 feet from SE cor. Section 15, Block 19, T. & P. Survey, (location has been changed). William Sudderth's No. 1 J. W. Tiner, SW cor. NE 80 acres S half Gabriel Zumwalt Survey, No. 279. Midwest Exploration Co.'s No. 2 Thornton, 330 feet south and 1,070 feet west NE cor. SE, Section 18, Block 19, T. & P. Survey. Marland Oil Co.'s No. 3 Mason, 330 feet south and 930 feet west SE cor. NE, Section 18, Block 19, T. & P. Survey. Leigh Taliaferro's No. 1 T. L. Blanton, (was King) 500 feet from the south line and 1,000 feet from the east line W. Berryhill Survey. Dry and abandoned (was carried in N. Scott Survey).

In Fisher County, Danciger Oil & Refining Co.'s No. 1 Lanius, center SE, Section 15, Block Y, T. & P. Survey. Caldwell and others' No. 1 Rochelle, 330 feet from SW cor. NE, Section 184, Block 3, T. & P. Survey. Hucony Gas Co.'s No. 1 Langford, 150 feet from the west line and 600 feet from the south line, Section 7, Block 21, T. & P. Survey.

In Upton County, Texas Pacific Coal & Oil Co.'s No. 1 John Lane, 330 feet from the north and west lines NE, Section 1, G. C. & S. F. Survey. Roxana Petroleum Corp.'s No. 5 Della Bowen, 2,448 feet from the north line and 330 feet from the west line Section 6, G. C. & S. F. Survey. Sun Oil Co.'s No. 7 Burleson, 990 feet from the north line and 330 feet from the east line Sun Oil Co.'s 160-acre lease in T. C. Jones Survey, No. 100. Dixie Oil Co.'s No. 13 Burleson, 990 feet from the north line and 330 from the east line of their 160 acres in the T. C. Jones Survey No. 100.

LOADING RACK NEAR BORGER, TEX.

WEST TEXAS WILDCATS

Week Ended November 13, 1926

Company, Farm and Location—	Remarks—
ANDREWS COUNTY	
A. G. Carter & Zweifel's No. 1 Cowden, C SE Sec. 18, Blk. A-52, Pub. Sch. Ld. Sur.	Rig.
BREWSTER COUNTY	
Green Valley Oil Co.'s No. 3 Wilson	Spudded 100 ft. and shut down.
John C. Roseborough, Jr.'s No. 1 Skinner, C Sec. 39, Blk. 4, T. & S. L. Sur.	Shut down 1,290 ft.
CASTRO COUNTY	
Gulf Prod. Co.'s No. 1 Clements	unning 20-inch 105 ft.
COCHRAN COUNTY	
J. C. Whicker's No. 1 G. C. Landon	Drilling 360 ft.
COKE COUNTY	
Lipan Oil Co.'s No. 1 E. C. Rawlings, CNL Sec. 390, Blk. 1-A, H. & T. C. Survey	Fishing tools 2,706 ft.
CONCHO COUNTY	
The Exploration Co.'s No. 1 Hartgrove, Blk. 240	Shut down 1,115 ft., 4 bailers salt water per hour.
Culbertson Bros.' No. 1 W. S. Sec. NE SW Blk. 742	Drilling 1,905 ft.
Gene Mays and others' No. 1 Hartgrove, NW SW Sec. 312, Blk. A-1173	Shut down for casing 998 ft.
CRANE COUNTY	
Duffy Bros. and others' No. 1 Cowden Bros., Sec. 65, Blk. X, C. C. S. D. & R. N. G. Sur.	Top lime 2,900 ft., S. D. for orders 3,523 ft.
Gulf Production Co.'s No. 1 State-Lasseter, SW cor. Sec. 36, Blk. 30, University Sur.	Top lime 2,894 ft., top pay 2,975 ft., total depth 3,013 ft., 1,400 ft. oil in hole.
Gulf Production Co.'s No. 4 Crier-McElroy, SW cor. Sec. 198, Blk. F.	Drilling 230 ft.
Gulf Production Co.'s No. 2 Crier-McElroy-A, SE cor. NW Sec. 198, Blk. F	Building rig.
Gulf Production Co.'s No. 2 T. J. McElroy, C SW SE Sec. 203, Blk. F, C. C. S. D. & R. G. N. G. Sur.	Top lime 2,697 ft., drilling out cement 2,700 ft.
Gulf Production Co.'s No. 4 J. T. McElroy, C SW NW Sec. 197, Blk. F.	Rigging up.
Gulf Production Co.'s No. 5 J. T. McElroy, C NE NW, Sec. 197, Blk. F	Building rig.
Independent Oil & Gas Co.'s No. 10 Taylor, Sec. 6, H. T. Sapp Sur.	Drilling 2,200 ft., 1,000 ft. oil in hole.
Magnolia Petroleum Co.'s No. 2 O'Keefe (Univ.), NW NW Sec. 38, Blk. 30, University Sur.	Drilling 2,840 ft., anhydrite.
Magnolia Petroleum Co.'s No. 1 State-Lasseter, Sec. 35, Blk. 30, University Sur.	Rigging up.
Magnolia Petroleum Co.'s No. 3 University	Top salt 1,137 ft., drilling 1,150 ft.
Magnolia Petroleum Co. & Hardwick's No. 1 University	Top salt 1,110 ft., underreaming 6-inch 2,550 ft.
Marland Oil Co.'s No. 1 Cowden, SE cor. Sec. 81, Blk. X, C. C. S. D. & R. G. N. G. Sur.	Top salt 660 ft., drilling 2,350 ft., 2,000 ft. oil in hole.
Marland Oil Co. & F. P. Zoch's No. 1-B Cowden, SE cor. NE Sec. 81, Blk. X	Rigging up.
Marland Oil Co.'s No. 2 Hughes-Gibbs, Sec. 93, Blk. Y, C. C. S. D. & R. G. N. G. Sur.	Pay 2,303-58 ft., swabbing.
Marland Oil Co.'s No. 2 Durham, NE cor. Sec. 82, Blk. X, C. C. S. D. & R. G. N. G. Sur.	Top salt 640 ft., shot 180 qts., 2,309-48 ft., bridged.
Marland Oil Co.'s No. 3 Durham, Sec. 82, Blk. X, C. C. S. D. & R. G. N. G. Sur.	Drilling 2,235 ft.
Marland Oil Co.'s No. 1 Mary Dawson, NE cor. Sec. 84, Blk. X, C. C. S. D. & R. G. N. G. Sur.	Drilling 3,050 ft., 800 ft. sulphur water 2,978 ft.
Marland Oil Co.'s No. 2-D E. S. Hughes	2,300 ft. oil in hole 2,355 ft., swabbing.
Marland Oil Co.'s No. 4-C E. S. Hughes, Sec. 86, Blk. X, C. C. S. D. & R. G. N. G. Sur.	Top salt 615 ft., running 6-in. 2,135 ft.
Prairie O. & G. Co.'s No. 1 University, NE NE, Sec. 39, Blk. 30, University Sur.	Top salt 1,140 ft., shut down 2,775 ft.

(Continued on Page 158)

WEST TEXAS PRODUCTION REPORT FOR OCTOBER, 1926

County—	Wells	Bbls.
Crane-Upton	137	374,670
Crockett	23	28,912
Howard	13	14,234
Loving	1	90
Mitchell	114	106,307
Reagan	149	809,000
Scurry	4	1,178
Total	441	1,334,391

PIPE LINE RUNS BY COMPANIES

Colorado-Texas Ref. Co.	106,307
Humble Pipe Line Co.	63,375
Kay County Gas Co.	338,.54
Magnolia Petroleum Co.	8,596
Reagan County Purchasing Co.	809,000
Storage	1,558
Texas Pipe Line Co.	7,401
Total	1,334,391

(Continued on Page 158)

Panhandle Production Up Despite Cold

Average Per Well Shows Decline. Test Six Miles From Amarillo Abandoned. Good Wells Completed in Field

By C. D. Lockwood
Staff Correspondent, Panhandle Field

Texas Panhandle production held its own again this week, even registering a gain of some 2,000 bbls., although the daily average production per well shows a further drop as shown on the accompanying table. One of Amarillo's hopes of obtaining production at her doorstep was blasted when the Gulf Production Co.'s No. 1 W. H. Bush in Section 89, Block 9, about 6 miles northwest of Amarillo in Potter County picked up 1,200 feet of salt water at 2,980 feet and was ordered abandoned at 4,000 feet.

The Gulf Production Co. brought in one of the best wells of the week, however, in its No. 9 Whittenburg-A in Lot 30 of the Caperton & Williams subdivision, Mary Whitley Survey. It topped the pay at 2,916 feet and at total depth of 2,932 feet flowed 2,765 bbls. the first 24 hours. Gravity of the crude tests 36.7 degrees.

The largest well of the week was the Southwestern Oil & Development Co.'s No. 2 Johnson on the property recently purchased from E. J. Dunnigan and others in Section 21, Block Y. It flowed 3,000 bbls. at 2,916-43 feet.

Phillips Petroleum Co.'s No. 1 Johnson Florence in Section 22, Block V of the H. O. Jameson Survey was the third best, flowing 2,000 bbls. the first 24 hours after an 80-quart shot at 2,906-38 feet, but it dropped to 1,300 bbls. the second day.

In Gray County, the Canyon Oil & Gas Co.'s No. 1 Jackson, NW cor. Section 60, Block B-2, created a sensation when it flowed 316 bbls. the first 24 hours Armistice Day after a 540-quart shot at 2,809-80 feet. The oil tested 35 degrees. Saturday, however, it stopped flowing and the tools were run to clean it out at latest report. The 8-inch in this well was set at 2,365 feet.

Wheeler County had a couple of interesting wells again this week. The Texas Company's No. 1 Smith, in the NE of Section 40, Block 24, H. & G. N. Survey, flowed and swabbed 110 bbls. at 2,305-10 feet. The World Oil Co.'s No. 1 Jackson, SE cor. Section 11, Block 27, also had a showing of oil at 2,240-50 feet.

DRILLING REPORT

For Week Ending November 11, 1926

County—	First Report	Wells Drlg.	Shut Down
Armstrong	0	2	0
Carson	2	51	2
Castro	0	2	0
Childress	1	1	0
Collingsworth	0	4	1
Crosby	0	1	0
Dallam	0	2	1
Deaf Smith	0	2	0
Donley	0	1	0
Gray	3	76	7
Hall	0	1	0
Hansford	0	2	1
Hartley	0	6	4
Hemphill	0	4	2
Hockley	0	1	0
Hutchinson	1	306	25
Lamb	0	0	1
Lipscomb	0	2	1
Moore	0	11	2
Ochiltree	0	2	3
Oldham	0	1	0
Potter	0	4	1
Parmer	0	1	0
Randall	0	1	0
Roberts	0	6	2
Sherman	0	2	0
Wheeler	0	18	3
Total	7	510	56

Panhandle Locations

Following are some new locations announced this week in the Texas Panhandle:

In Collingsworth County, Wischkumper's No. 1 fee, center SE Section 93, Block 16, H. & G. N. Survey, location.

In Gray County, Phillips Petroleum Co.'s No. 2 H. M. Davis, 330 feet each way from SW cor. SE NE Section 86, Block 3; No. 3, 330 feet each way from NW cor. SE NE; No. 4, 330 feet each way from NE cor. SE NE.

In Carson County, Delmar Oil Co.'s No. 1 T. D. Lewis, 330 feet from south and west lines SW cor. Section 115, Block B-4, I. & G. N. Survey, rig on ground. Republic Production Co.'s No. 1 Burnett, 330 feet each way from SE cor. Section 116, Block B-4. Marston Oil Co.'s No. 1 E. F. Bryan, 990 feet from south line and west line SW NW Section 92, Block B-4. J. C. Parks' No. 1 Noel, 330 feet from south line and 990 feet from west line SE Section 198, Block 3 (correction).

In Wheeler County, Mid-Continent Petroleum Co.'s No. 1 Compary, C SW SW NW Section 12, Block 27, H. & G. N. Survey. (Correction to location for Mid-Continent Petroleum Co.'s No. 1 Jackson).

Panhandle Completions

Gray County

Empire Gas & Fuel Co.'s No. 1 P. A. Worley, SW cor. SE, Section 63, Blk. 3, was shot with 200 quarts at 2,966-3,047 feet and flowed 200 bbls. the first 15 hours afterward. Humble Oil & Refining Co.'s No. 4 Merten, SW cor. NW, Section 87, was also shot with 200 quarts at 3,123-75 feet and flowed 115 bbls. the first day and 80 bbls. at latest report; No. 1 Worley & Reynolds in the SE cor. NE Section 83, north offset to the Gulf Production Co.'s 1,160-bbl. well, reported last week, had 600 feet of salt water in the hole from granite wash at 3,025 feet; No. 2, north offset to Gulf's No. 4, had no oil at 3,062 feet and was fishing for bailer.

Magnolia Petroleum Co.'s No. 2 Merten NE cor. NW SW Section 82, was shot with 350 quarts at 2,975-3,100 feet, total depth 3,110 feet, and flowed 50 bbls. It had a little gas at 2,880 feet and at 2,950 feet. McMan Oil & Gas Co.'s No. 7 Merten, Section 63, flowed 250 bbls. the first 24 hours from granite wash at 3,028-57 feet.

Prairie Oil & Gas Co.'s No. 2 Merten, Section 82, bridged after a 320-quart shot at 3,022-3,112 feet and the tools were lost. Pure Oil Co.'s No. 2 Benton, SW cor. Section 63, also bridged after its third shot which was 300 quarts at 3,100-43 feet, total depth 3,170 feet; No. 3 Benton had 1,000 feet of oil in hole following a shot of 80 quarts at 3,060-3,114 feet; No. 1 H. M. Davis in Section 86, NE cor., was completed for 460 bbls. with a little gas from pay at 3,139-45 feet, total depth 3,155 feet.

The Texas Company's No. 1 A. Holmes, NE cor. SE, Section 87, swabbed 50 bbls. at 3,220 feet and was cleaning out; No. 2 had granite wash at 3,120-65 feet and lime at 3,165-68 feet, total depth 3,175 feet, and was making 4,000,000 feet of gas and spraying 12 bbls. of oil. Same company's No. 4 Holmes was a bad hole and was plugged at 890 feet.

Hutchinson County

Amerada Petroleum Corp.'s No. 3 G. A. Whittenburg, was shot with 60 quarts at 3,007-48 feet and swabbed 60 bbls. afterward. Cockrell & McIlroy's No. 4 Smith, Section 14, Block Y, was shot with 460 quarts at 2,961-3,051 feet, after which it swabbed and flowed 450 bbls. Dixon Creek Oil Co.'s No. 17-A Smith, Section 14, Block Y, flowed 125 bbls. natural at 2,875-2,995 feet; No. 37 Smith in Section 7, Block Y, swabbed 100 bbls. after a 460-quart shot at 2,880-2,993 feet.

Empire Gas & Fuel Co.'s No. 2 Johnson-A, Section 68, Block 46, flowed 200 bbls. initially after an 80-quart shot at 2,885-2,915 feet; No. 4 Weatherly in Section 19, Block Y, made 400 bbls. following a 100-quart shot at 2,956-3,005 feet, total depth 3,010 feet.

Gulf Production Co.'s No. 27 Dial, on the east line of Section 1, Block I, made 100 bbls. after a 160-quart shot at 2,924-65 feet; No. 31 Dial, Section 25, Block 47, flowed 290 bbls. after a 40-quart shot at 2,742-85 feet; No. 35 Dial, Section 1, Block XO2, flowed 200 bbls. at 2,785-97 feet while cleaning out; No. 4 E. Cockrell bridged after at 260-quart shot at 2,914-81 feet and was fishing for bailer; No. 7 J. A. Whittenburg-A, in the Mary Whitley Survey, swabbed 10 bbls. and swabbed dry at total depth of 2,895 feet; No. 8 flowed 250 bbls. at 2,967 feet; No. 9 flowed 2,765 bbls. at 2,916-32 feet.

Dan A. Japhet's No. 6 Smith, Section 11, Block Y, was shot with 200 quarts at 2,810-52 feet, total depth 2,854 feet and swabbed 25 bbls. Midwest Exploration Co. and others' No. 7 Smith flowed and swabbed 500 bbls. at 2,694-2,766 feet. Phillips Petroleum Co.'s No. 1 Johnson-Florence, M. Whitley Survey, was shot with 80 quarts at 2,906-38 feet, total depth 2,950 feet, and flowed 2,000 bbls.; No. 4 Johnson-Gordon, Section 21, Block Y, flowed 125 bbls. at 2,895-2,959 feet; No. 3 W. L. Kingsland, Section 6, Block B-4, swabbed 75 bbls. at 2,717-50 feet.

Phillips Petroleum Co.'s No. 10 Perkins-Martin was a location abandoned by agreement with Gulf Production Co. not to drill offsets. It is in Section 1, Block XO2. No. 1 J. A. Whittenburg-Byron, in the Mary Whitley Survey, flowed 450 bbls. at 2,788-2,852 feet; No. 1 Whittenburg-Elra, Tomlinson Survey, flowed 700 bbls. at 2,741-2,802 feet after a 120-quart shot. Phillips Petroleum Co. and Coble Oil Co.'s No. 17 J. A. Whittenburg made 200 bbls. after plugging back from 3,000 to 2,989 feet, top of pay being 2,919 feet. Phillips Petroleum Co. and Pulaski Oil Co.'s No. 4 Smith swabbed 100 bbls. at 2,920-46 feet; No. 5 swabbed 100 bbls. at 2,870-2,905 feet. Prairie Oil & Gas Co.'s No. 2 Diana Shaw, Section 27, Block Y, flowed 250 bbls. at 2,900-18 feet and was shut down for storage.

Skelly Oil Co.'s No. 5 Johnson, Section 20, Block Y, made 50 bbls. after an 80-quart shot at 2,898-2,930 feet, total depth 2,933 feet; No. 7 flowed 2,000 bbls. at 2,952-62 feet; No. 8 flowed 250 bbls. at 2,940-60 feet; No. 9 flowed 200 bbls. at 2,960-98 feet.

Southwestern Oil & Development Co.'s No. 2 Johnson, Section 21, Block Y, flowed 3,000 bbls. at 2,916-43 feet. The Texas Co.'s No. 7 Burnett, Section 132, Block 5, was dry and abandoned at 3,945 feet. Wentz Oil Corp.'s No. 1 Cal Merchant was also abandoned at 2,800 feet. This is in Section 34, Block 47.

Potter County

Gulf Production Co.'s No. 1 Bush was dry and abandoned at 4,000 feet.

DAILY AVERAGE PRODUCTION OF THE AMARILLO DISTRICT

Week Ending November 13, 1926

Hutchinson County

Company—	Wells	Daily Average Last Week	Daily Average This Week
Alaska Pet. Co.	1	40	40
Amerada Pet. Corp.	8	860	715
American Ref. Co.	3	590	605
Apex Oil Co.	2	275	250
Badger Oil Co.	3	190	140
R. G. Barnum	1	55	55
Buffalo Oil Co.	1	60	70
Canadian River Oil Co.	5	375	435
Center Dome Oil Co.	2	15	30
Centerfield Oil Co.	1	0	0
Coble-Whittenberg	4	790	800
Continental Oil Co.	1	5	10
Currie Brothers and J. R. Phillips	3	1,500	2,000
Cockrell & McIlroy	4	125	340
Delmar Oil Co.	1	45	50
Derby Oil Co.	4	1,150	1,135
Devonian Oil Co.	4	590	1,700
Dixon Creek Oil Co.	24	7,500	8,000

(Continued on Page 159)

WILDCAT OPERATIONS IN PANHANDLE

Week Ending November 13, 1926

ARMSTRONG COUNTY

Company, Well, Farm Name, Section and Block—	Remarks—
Red Hill Corp.'s No. 1 Puckett Bros., Sec. 3, Hooper & Wade Sur.	Drilling, 3,560 ft.
United Oil & Trust Co.'s No. 1 J. P. Reck, Sec. 162, Blk. 4, H. & G. N. Sur.	Spudding.

BRISCOE COUNTY

Smith & Baker's No. 1 J. W. Owens, Sec. 11, Blk. GC2	Location.

CARSON COUNTY

Amatex Oil Co.'s No. 1 E. S. Polling, Sec. 22., Blk. 2-Y	S.D., 1,980 ft.
Champlin Ref. Co.'s No. 1 E. F. Bryan, Sec. 92, Blk. 4	Rigging up.
Champlin Ref. Co.'s No. 2 E. F. Bryan, Sec. 92, Blk. 4	Rig.
Delmar Oil Co.'s No. 1 T. D. Lewis	New loc., rig on ground.
Empire G. & F. Co.'s No. 1 M. P. Co. fee, Sec. 91, Blk. 4	Drilling, 720 ft.
Humble O. & R. Co.'s No. 1 Burnett Acct. 3, Sec. 127, Blk. 5	Show gas, 2,320 ft., drlg., 2,763 ft., 16,000,000 ft. gas.
Humble O. & R. Co.'s No. 1 Burnett, Acct. 4, Sec. 12, Blk. 4	Top of gas 2,605 ft., drlg., 2,760 ft., 8,000,000 ft. gas.
F. Knappenberger's No. 1 E. F. Bryan, Sec. 107, Blk. 4	Rigging up.
M. & M. Drilling Co.'s No. 1 C. F. Moore, C NE, Sec. 10, Blk. 5	Location.
Magnolia Pet. Co.'s No. 1 fee, No. 244, Sec. 91, Blk. 4	Rig.
Marland Oil Co.'s No. 1 E. F. Bryan, Sec. 91, Blk. 4	Drilling, 2,900 ft.
Marland Oil Co.'s No. 2 E. F. Bryan, Sec. 92, Blk. 4	Drilling, 1,250 ft.
Marland Oil Co.'s No. 1 Burnett-E, Sec. 117, Blk. 4	Fishing, 2,365 ft.
Marland Oil Co.'s No. 1 Burnett-F, Sec. 117, Blk. 5	Drilling, 1,440 ft.
Marland Oil Co.'s No. 1 Burnett-G, Sec. 126, Blk. 5	Drilling, 1,650 ft.
Marland Oil Co.'s No. 1 Burnett-I, Sec. 102, Blk. 4	Spudding.
Marston Oil Co.'s No. 1 E. F. Bryan	New loc., rig.
McMan O. & G. Co.'s No. 1 E. F. Bryan, Sec. 107, Blk. 4	Drilling, 2,100 ft.
McMan O. & G. Co.'s No. 1 E. F. Bryan, Sec. 107, Blk. 4	Location.
McMan O. & G. Co.'s No. 3 E. F. Bryan, Sec. 107, Blk. 4	Rigging up.
McMan O. & G. Co.'s No. 4 E. F. Bryan, Sec. 107, Blk. 4	Location.
Mound Valley Oil Corp.'s No. 1 G. W. Witter, Sec. 1, Blk. 7	Set 6-in., 2,805 ft., S.D., 2,820 ft.
Navajo Oil Co.'s No. 1 E. S. Polling, Sec. 22, Blk. 2-Y	Fishing, 1,750 ft., rig blew down.
Nunn & McAuley's No. 1 E. F. Bryan, Sec. 107, Blk. 4	U.R. 8-in., 2,240 ft., T.D., 2,375 ft.
J. C. Park's No. 1 J. L. Noel, Sec. 198, Blk. 3	Drilling, 2,585 ft.
Prairie O. & G. Co.'s No. 1 Deahl, Sec. 5, Blk. 5	Drilling, 2,808 ft.
Prairie O. & G. Co.'s No. 1 J. W. McConnell, Sec. 67, Blk. 4	Spudding.
Republic Prod. Co.'s No. 1 Burnett est.	New loc., rig.
Roxana Pet. Corp.'s No. 2 E. F. Bryan-A, Sec. 92, Blk. 4	Drilling, 1,250 ft.
Roxana Pet. Corp.'s No. 3 E. F. Bryan-A, Sec. 92, Blk. 4	Drilling, 1,220 ft.
Roxana Pet. Corp.'s No. 1 E. F. Bryan-B, Sec. 107, Blk. 4	Drilling, 2,350 ft.
Roxana Pet. Corp.'s No. 1 E. F. Bryan-C, Sec. 107, Blk. 4	Rigged up and shut down.
Roxana Pet. Corp.'s No. 1 E. F. Bryan-D, Sec. 92, Blk. 4	Spudding.
Skelly Oil Co.'s No. 1 E. F. Bryan, Sec. 92, Blk. 4	Spudding.
Southwestern O. & D. Co.'s No. 1 C. R. Garner	Spudding.
The Texas Company's No. 1 C. R. Garner	Rig.
The Texas Company's No. 1 M. P. Co. fee, Sec. 91, Blk. 4	Drilling, 400 ft.
The Texas Company's No. 2 M. P. Co. fee, Sec. 91, Blk. 4	Drilling, 375 ft.
The Texas Company's No. 1 C. A. Noel, Sec. 26, Blk. 4	Location.
The Texas Company's No. 1 J. L. Noel, Sec. 187, Blk. 3	Rig.
White Deer Oil Co.'s No. 1 Jordan-Brown, Sec. 114, Blk. 4	Small show oil, 3,117 ft., 700 ft water, 3,130-40 ft., T.D., 3,160 ft., plug back to 3,105 ft., S.D.
White Deer Oil Co.'s No. 2 Jordan-Brown, Sec. 104, Blk. 4	Rigging up.

CHILDRESS COUNTY

Gibson Oil Corp. et al's No. 1 Smith, J. Gregg	Fishing bit, 2,600 ft.
C. L. Sloane et al's No. 1 B. P. Smith, Sur. 49, F. P. Knott Lands	Rigging up.

(Continued on Page 104)

Gone are the days when cracking plants limited to gas oil and light distillates as charging stocks justify the capital investment in view of the rising costs of such stocks

From now on the most profitable refinery operations, if not the *only* profitable operations, will be strictly confined to those plants equipped to produce the greatest gasoline yields, from the cheapest and most plentiful stocks: i. e., fuel oils, topped crudes and low priced crudes run direct and in one operation

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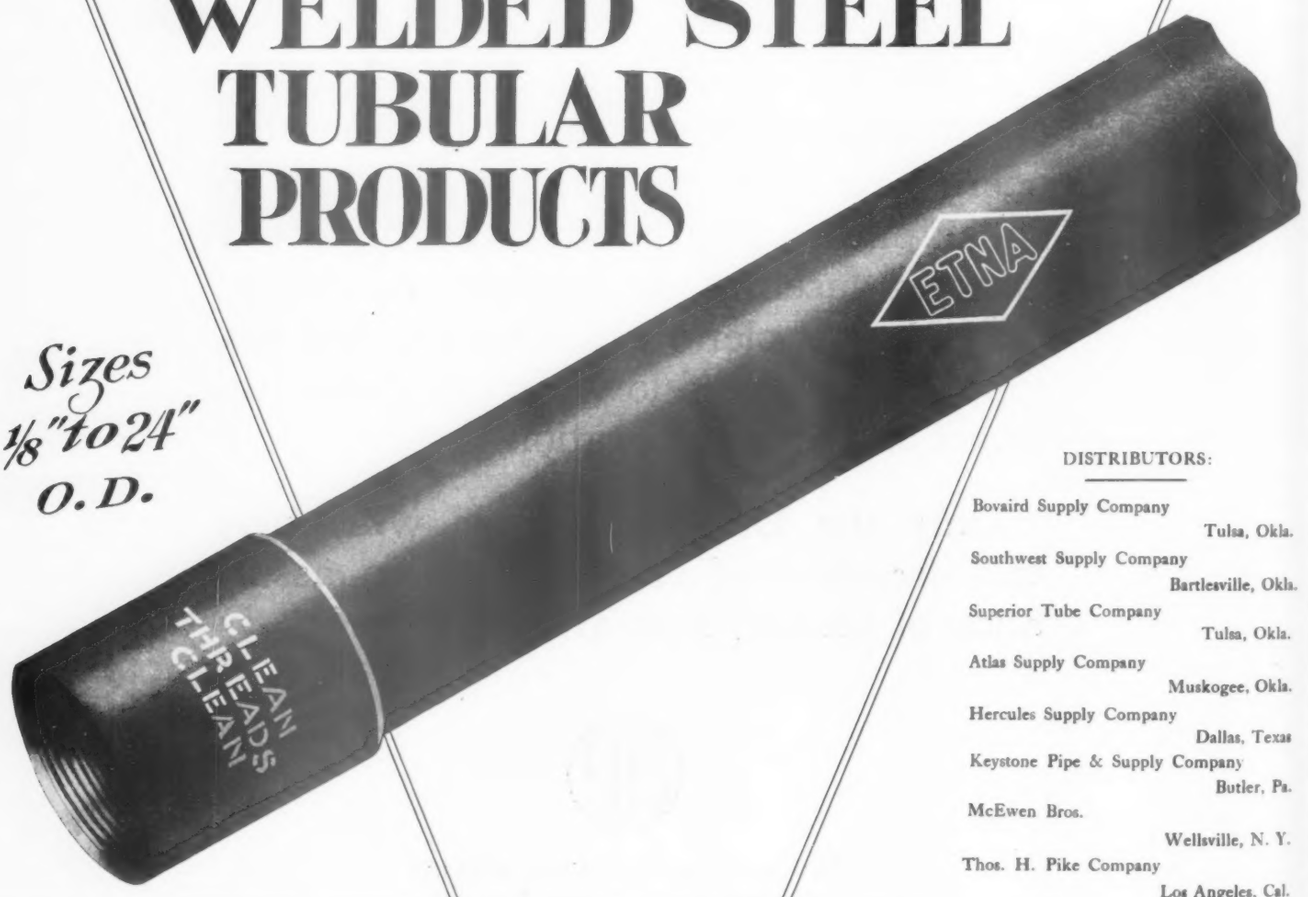

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Seminole Production 112,000 Barrels

Proration Working Smoothly. Question of Its Extension to New Wildcat Well of Gypsy Company

By J. L. Dwyer
Staff Correspondent, Oklahoma Fields

With the proration agreement in the Seminole Field operating smoothly, the question now presents itself as to whether or not the agreement shall be extended to the new wildcat well of the Gypsy Oil Co. in Section 16-9-5.

The Seminole Pool produced slightly over 112,000 bbls. on Sunday of this week, and the production of the Wilcox sand wells was as follows:

Company, Lease—	No. Wells	Prod.
Amerada-Gardner, Killingsworth	1	2,495
Barnsdall, Carter	1	Dead
Carter Oil Co., B. Carter	1	1,130
Carter Oil Co., J. Carter	1	5,160
Gypsy Oil Co., Carter	1	647
Gypsy Oil Co., Fixico	2	1,994
Gypsy Oil Co., Wolfe	1	6,270
Independent-Garland, Fixico	4	7,815
Independent-Inter-Ocean, Jones	1	3,391
Indian Terr. Ill. Oil Co., Bowlegs	3	9,330
Indian Terr. Ill. Oil Co., Reed	2	80
Indian Terr. Ill Oil Co., James	1	3,585
Mid-Cont. Pet. Corp., Rentie	1	3,700
Prairie Oil & Gas Co., Strothers	1	7,960
Pure Oil Co., Strothers	4	13,932
Searight et al, Grayson	1	4,268
T. B. Slick, Franks	1	7,020
Sinclair Oil & Gas Co., Cudjo	2	8,930
Superior Oil Co., Cudjo	1	5,196
Tidal-Osage Oil Co., Fixico	3	4,390
Tidal-Osage Oil Co., Mahardy	2	5,595
Total Wilcox		102,888

Two Wilcox sand wells quit flowing. They are Barnsdall Oil Co.'s No. 2 Carter and Tidal-Osage's No 1 Fixico, which is a west offset to the discovery well.

The peculiarities of the pool are once more demonstrated by the completion of the Carter Oil Co.'s No. 2 Joe Carter, SE cor. SW SW Section 24-9-6. This well had the Wilcox sand at 4,175-99 feet and is flowing 250 bbls. an hour. The direct south offset is the well of the Prairie Oil & Gas Co. in the NE cor. NW NW, Section 25-9-6, which was dry in the Wilcox sand and was plugged back to the Hunton and is producing from that horizon.

This is the second instance in this pool where a good well has offset a location which has been unfavorable. In the north end of the pool the Carter Oil Co.'s No. 1 B. Carter, which offset the I. T. I. Oil Co.'s No. 2 Reed, was a good well and had an initial production of 1,100 bbls., while the No. 2 Reed only made 100 bbls.

The finding of a good well to the north of the Prairie's failure in the Wilcox sand probably means that a "low" separates the groups of wells in Section 24 and Section 26.

South End Producers

There was an added interest in the south end of the Seminole Pool during the past week when two wells were completed in that area. The well of T. B. Slick, NW cor. NE Section 35-9-6, found the Wilcox sand at 4,012-33 feet, and began flowing 300 bbls. an hour. The Prairie Oil & Gas Co. extended the limits of the field to the west when they drilled in No. 1 Strothers, SE cor. SE Section 27-9-6, and the well started off with an initial rate of flow at 200 bbls. an hour. Deepening has increased this flow to 400 bbls. an hour, and it is thought that if the well were not pinched in, but allowed to flow free, it would make over 12,000 bbls. daily. The Prairie well is a diagonal offset to the Sinclair Oil & Gas Co.'s No. 1 Cudjo B, and clearly indicates that much good production may be expected from the southwest section of the field.

The pipeline situation at Seminole is much improved, and very little oil is going on the ground. The estimated pipeline runs of the various companies are:

	Bbls.
Oklahoma Pipe Line Co.	25,000
Prairie Pipe Line Co.	23,000
Gulf Pipe Line Co.	20,000
Sinclair Pipe Line Co.	20,000
Magnolia Pipe Line Co.	10,000
Tidal Oil Co.	5,000
Independent Oil & Gas Co.	5,000
Total daily runs	108,000

In addition to the pipeline capacity, there are over two hundred tank cars chartered to transport oil from the Seminole Field to various refineries. A program of tank building has started in earnest in the field, and while it is the opinion of many that this program was about 60 days late, it is better now than never. Considering the huge production of the wells, the bad weather conditions which prevailed, and the unfavorable transportation facilities which resulted, it must be admitted that the Seminole Field has been very well handled.

The performance of the Tidal-Osage Oil Co. well, in the SW cor. SE SE, Section 3-8-4, Pottawatomie County, is being watched with a great deal of interest. This well is not a spectacular producer in the Hunton lime, but the fact that the best Wilcox wells at Seminole have been on locations which had a very meagre yield in the Hunton lime, influences many to give very favorable consideration to the well in Section 3-8-4. It is located in a region where geological indications have been very favorable, and this is reflected in the fact that almost all of the leases on the structure (as outlined at present) are taken by companies who play geology intensively.

Southwest From Seminole

There has been a decided interest in the region southwest from the Seminole Pool, and leases in that direction have commanded prices which from their proximity to production seem fabulous.

A wildcat well which caused much interest was the Tidal Oil Co. and Gardner Petroleum Co.'s No. 1, SW cor. SW, Section 12-19-1w, Payne County, which is making 7 bbls. an hour from a deep sand found at 4,716-29 feet. The well is flowing by heads every hour. While this production from a depth of 4,700 feet is not of the nature which disturbs markets, or even encourages drilling activity, the fact that there is a producing sand at this depth is of much interest, and presents a new marker for future study and observations in this district.

Ranked with the wildest of the wild, a well in Major County, about 75 miles west of Enid, Okla., has caused a ripple of interest in an area which has been undisturbed by anything except cotton corn for several years. Henry Randau and others, drilling in Section 4-23-16w, are reported to have about 250 feet of oil in the hole from a depth of 612-618 feet. What the formation is is not known at this time, and it would hardly be justifiable to term it sand, as the red beds in this region are supposed to be better than 3,000 feet thick. If a thinning of the red beds should occur, and a sand be picked up, this region would benefit by a leasing campaign.

In southern Oklahoma, Hammon and others' No. 1, NW cor. SW NW, Section 16-3-5w, had sand 1,181-1,828 feet and made 40 bbls. an hour.

Seminole County Completions

The Carter Oil Co.'s No. 2, SE cor. SW SW, Section 24-9-6, made 290 bbls. from the Hunton lime at 3,977-4,017 feet and is drilling on down to the Wilcox. Indian Territory Illuminating Oil Co's No. 8, SW cor. NW SE, Section 24-9-6, had sand at 4,192-4,204 feet and made 3,890 bbls. No. 1, SW cor. NE, Section 24-9-6, had sand at 4,165-74 feet and was shot with 20 quarts and made 149 bbls. oil and 30 bbls. of water. Prairie Oil & Gas Co.'s No. 1, NE cor. NW NW, Section 25-9-6, had the Wilcox sand at 4,197 feet and found a hole full of water. It was plugged back to the Hunton lime at 3,975-4,005 feet and made 130 bbls. Independent Oil & Gas Co. and the Inter-Ocean Oil Co.'s No. 1 Jones, NW cor. SW SE, Section 26-9-6, made 4,694 bbls. from sand at 4,091-4,100 feet. Indian Territory Illuminating Oil Co.'s No. 1, NW cor. SE, Section 26-9-6, made 4,136 bbls. from sand at 4,125-33 feet. No. 3, SW cor. NW SE, Section 26-9-6, made 9,372 bbls. from sand at 4,043-51 feet. Pure Oil Co.'s No. 1 Strothers, NE cor. SW, Section 26-9-6, made 5,915 bbls. from sand at 4,128-30 feet. No. 2, NE cor. SE SW, Section 26-9-6, made 9,019 bbls. from sand at 4,058-70 feet. Sinclair Oil & Gas Co.'s No. 1 Cudjo-A, NE cor. NW, Section 35-9-6, made 8,288 bbls. from sand at 3,989-4,007 feet. No. 1 Cudjo-B, NW cor. NW, Section 35-9-6, made 8,450 bbls. from sand at 3,959-73 feet. Superior Oil Co.'s No. 1 Cudjo, NW cor. SE NW, Section 35-9-6, made 9,268 bbls. from sand at 3,994-4,008.

Seminole County New Work

Indian Territory Illuminating Oil Co. is rigging up a rotary for No. 10 Bowlegs, NE cor. SE SE, Section 26-9-6. The rig is up for No. 11 Bowlegs, SW cor. SE SE, Section 26-9-6. No. 12 Bowlegs, SW cor. NE SE, Section 26-9-6, is drilling at 500 feet. Pure Oil Co. has the rig up for a twin well in No. 7-A Lewis, SW cor. SW, Section 26-9-6. The rig is built for No. 17 Lewis, CSL SW SW, Section 26-9-6. Sinclair Oil & Gas Co. has built the rig for No. 4-A Cudjo, SE cor. NE NW, Section 35-9-6. The rig is built for No. 5-A Cudjo, NE cor. NW NW, Section 35-9-6. Prairie Oil & Gas Co. is drilling at 250 feet in No. 6, SE cor. NW SE, Section 33-10-6. A rotary is rigged up for No. 7 Grayson, SE cor. SW SE, Section 33-10-6. Searight and others are drilling at 3,457 feet in No. 1, SE cor. NE, Section 33-10-6. No. 3, SE cor. SW NE, Section 33-10-6, is spudded and shut down. The rig is built for No. 8 Grayson, NE cor. SE NE, Section 33-10-6. Tidal-Osage Oil Co. is drilling at 740 feet in No. 5, NW cor. NE SW, Section 24-9-6. No. 6, SW cor. NE SW, Section 24-9-6, is drilling at 400 feet. Prairie Oil & Gas Co. has dug the cellar for No. 1 Bruner, SE cor. NE SW, Section 33-10-6. A location has been made for No. 1 Alexander, SE cor. SW NW, Section 33-10-6. Gardner Petroleum Co. is drilling at 200 feet in No. 1, SW cor. SE, Section 24-11-9. Terrienne and the Tidal Oil Co. have a rig on the ground for No. 1 Jacobs, SW cor. NE, Section 14-11-10. Barnsdall Oil Co. has spudded No. 1, NW cor. SE SW, Section 15-10-9. Eagle Picher Lead Co. has a rig up for No. 2 Barnett, SW cor. NW, Section 36-11-11. Atlantic Oil Producing Co. and the Barnsdall Oil Co. have set the surface casing in No. 1, SE cor. NW, Section 1-9-5. Independent Oil & Gas Co. has a rig up for No. 3 Bruner, SE cor. NE, Section 10-9-5. Magnolia Petroleum Co. is drilling at 400 feet in No. 2, SW cor. NW SW, Section 11-9-5. Amerada Petroleum Corp. has set surface pipe in No. 1, NW cor. NW, Section 15-9-5. Sinclair Oil & Gas Co. has spudded No. 1, SE cor. SW NE, Section 18-9-5. No. 1 Polly, NW cor. SW NW, Section 3-9-6, is a rig. Carter Oil Co. has a rig on the ground for No. 3 Davis, SE cor. NE NE, Section 4-9-6. The rig is also on the ground for No. 4 Davis, NE cor.

NEW LOCATIONS IN TEXAS PANHANDLE AND NORTH CENTRAL AND WEST TEXAS

Carson County

Frank Knappenberger's No. 1 E. F. Bryan, 330 feet north and east of SW cor. NW NW, Section 107, Block 4, I. & G. N. Survey. M. & M. Drilling Co.'s No. 1 C. F. Moore, C NE, Section 10, Block S, (formerly reported Block 5, in error), H. & G. N. Survey. Roxana Petroleum Corp's No. 4 E. F. Brayan-A, 990 feet north and 330 feet east SW cor. NE, Section 92, Block 4, I. & G. N. Survey; No. 2 E. F. Bryan-B, 330 feet south and east NW cor. NE SW, Section 107, Block 4, same survey; No. 2 E. F. Bryan-D, 330 feet south and east NW cor. SE NW, Section 92, Block 4, same survey; No. 3, 330 feet north and west SE cor. SE NW, same section.

Dallam County

Marland Oil Co. and others' No. 1 Capitol Syndicate, 990 feet south and east NW cor. Section 36, Block 18, Capitol Syndicate lands.

Hutchinson County

Canadian River Oil Co.'s No 1 Johnson Brothers, 150 feet south and 165 feet east NW cor. west 10 acres of the N half NW, Section 22, Block Y. Dixon Creek Oil Co.'s No. 30 H. E. Smith and others, 330 feet south and west NE cor. NW SE, Section 5, Block Y. Globe Oil & Refining Co.'s No. 1 J. Q. Bost, 330 feet south and east NW cor. NE, Section 9, Block Y-2, T. T. R. R. Survey. Marland Oil Co.'s No 1 Cal Merchant, 1,750 feet south and 330 feet east middle of east line Section 38, Block 47, H. & T. C. Survey. Mudge Oil Co.'s No. 1 E. Cockrell, 330 feet north and east SW cor. S half Section 9, Block B-3, D. & S. E. Survey. Phillips Petroleum Co.'s No. 2 Johnson Brothers-Florence, 330 feet south and west NE cor. E half Lot 1, Johnson Brothers Subdivision of Mary Whitley Survey, No. 1. Skelly Oil Co.'s No. 13 Johnson Brothers, Section 20, 970 feet north and 877 feet east SW cor. NW, Section 20, Block Y; No. 14, 880 feet south and 1,060 feet east NW cor. NW same section; No. 15, 990 feet south and 1,090 feet west NE cor. NW, same section; No. 16, 1,020 feet north and 912 feet west SE cor. NW same section. Traders Oil Co.'s No. 1 Johnson Brothers, 330 feet south and east NW cor. Section 1, Block X03, H. & O. B. R. R. Survey. J. D. Ward's No. 1 H. E. Smith and others, 990 feet north and 330 feet west SE cor. SE SW, Section 15, Block Y.

North Central and West Texas
Callahan County

Ackers & Wilmot's No. 1 C. B. Snyder, 300 feet south and west NE cor. Section 4, T. & M. O. Survey. Amerada Petroleum Corp.'s No. 5 M. L. Long, 240 feet north and 300 feet west SE cor. of W half M. L. Long 37.5-acre tract, W. G. Anderson Survey. Brown & Co.'s No. 5 M. L. Long, 150 feet north and west SE cor. M. L. Long 37.5-acre tract, same survey.

Cooke County

Harry Hanberry's No. 1 G. H. Hellman, 440 feet north and 3,472 feet west SE cor. D. H Campbell Survey, A-196, being 440 feet north and 286 feet east SW cor. G. H. Hellman 220-acre tract. J. H. Hughes Development Co.'s No. 1 J. C. Embry, 450 feet north and 150 feet west SE cor. north 80 acres and west 160 acres T. J. Mose Survey, A-736. Lynch, Stahl & Burris' No. 1 M. A.

(Continued on Page 130)

SE NE, Section 4-9-6. The rig is on the ground for No. 4 Carter, NW cor. SW, Section 13-9-6, and also for No. 4 Fixico, NW cor. SE, Section 14-9-6. Mid-Continent Petroleum Corp.'s No. 11 Rentie, NW cor. NE SE, Section 14-9-6, is a rig on the ground. No. 4 Rentie, NE cor. SW SE, Section 14-9-6, is drilling at 500 feet; No. 6 Rentie, NE cor. SE SE, Section 14-9-6, is spudded; the rig is built for No. 10 Rentie, NE cor. NW SE, Section 14-9-6.

Mid-Continent Petroleum Corp. has built a rig for No. 12 Rentie, NE cor. SE, Section 14-9-6. Sinclair Oil & Gas Co. is building the rig for No. 3 Fixico, NE cor. SW NW, Section 23-9-6. Atlantic Oil Producing Co. and the Independent Oil & Gas Co. have built the rig for No. 2 Cudjo, NE cor. NW SE, Section 35-9-6. Carter Oil Co. has made a location for No. 3 Cudjo, SE cor. NW SW, Section 35-9-6. Sinclair Oil & Gas Co. has built the rig for No. 6-A Cudjo, SE cor. NW NW, Section 35-9-6. The rig is built for No. 4-B Cudjo. CSL SE NW NW, Section 35-9-6. Indian Territory Illuminating Co. has dug the cellar for No. 1 Payne, NW cor. NE Section 2-8-6. No. 3, NW cor. SE NE, Section 15-8-6, is drilling at 200 feet. Marland Oil Co. and the Mid-Continent Petroleum Corp. have built the rig for No. 1 Bull, SW cor. NW, Section 16-9-7. Independent Oil & Gas Co. is drilling at 750 feet in No. 3, NE cor. NW SE, Section 7-9-8. Independent Oil & Gas Co. and Atlantic Oil Producing Co. are drilling at 670 feet in No. 1, SE cor. SW NE, Section 7-9-8. Magnolia Petroleum Co. has made a location for No. 1 Graman, NW cor. SE NE, Section 22-8-8. Independent Oil & Gas Co. and the Atlantic Oil Producing Co. are drilling at 2,709 feet in No. 5, NE cor. SW NE, Section 32-8-8. Transcontinental Oil Co. has a rig on the ground for No. 4 Davis, NW cor. NE SW, Section 22-7-7. Amerada Petroleum Corp. is drilling at 3,940 feet in No. 10-A, SE cor. SW NE, Section 5-7-8.

Carter County

Magnolia Petroleum Co.'s No. 1 Peak, SE cor. NW SW, Section 2-1s-3w, is a rotary rig. No. 5, NE cor. NW NW, Section 19-1s-3w, had sand at 3,095-3,100 feet and was plugged back from a depth of 3,430 feet and is pumping 60 bbls. Humble Oil & Refining Co.'s No. 7, NW cor. SE NE, Section 33-1s-3w, had sand at 3,195-3,258 feet and flowed 40 bbls. Magnolia Petroleum Co.'s No. 2 Bumpass, NE cor. NW SE, Section 33-1s-3w, is rigging up a rotary. Roxana Petroleum Corp.'s No. 4, NE cor. SE, Section 7-2s-2w, had broken sands at 2,540-35 feet and made 200 bbls. Skelly Oil Co.'s No. 2, NW cor. SW, Section 8-2s-2w, had sand at 2,715-27 feet and pumped 50 bbls. Magnolia Petroleum Co. has the rig up for No. 2 Johnson, SE cor. SW NW, Section 15-2s-2w. No. 3, NW cor. NE SE, Section 16-2s-2w, had sand at 1,318-20 feet, and swabbed 270 bbls. Merrick Oil Co. is drilling at 900 feet in No. 4, SE cor. NE NE, Section 27-2s-2w. Magnolia Petroleum Co.'s No. 3, NE cor. SE, Section 3-2s-3w, had broken sands at 2,309-2,678 feet, and flowed 120 bbls. Wirt Franklin's No. 7, SE cor. NW SW, Section 22-2s-3w, had broken sands at 2,147-2,263 feet and flowed 85 bbls. Magnolia Petroleum Co. has the rig up for No. 13 Lahman, NW cor. SW SE, Section 23-2s-3w.

Grady County

Gant and others' No. 1-A, C NW NE, Section 19-5-7w, had sand at 1,962-70 feet, and pumped 30 bbls. of oil and water mixed. Meridian Oil & Gas Co. has made a location for No. 2-B Chandler, C NW SW, Section 24-5-8w. Oklahoma Natural Gas Co. is drilling at 750 feet in No. 1, NE cor. NW NE, Section 34-5-8w. Livermore and others are drilling at 300 feet in No. 1 Rigley, SW cor. NW NW, Section 12-5-9w. Meridian Oil & Gas Co.'s No. 2, CSL NW SW SW, Section 2-4-8w, had 22,000,000 feet of gas in sand at 2,108-20 feet. Magnolia Petroleum Co.'s No. 1, C SE NE, Section 11-4-8w, had broken sand at 2,196-2,203 feet with 3,000,000 feet of gas. Hamon & Cox's No. 1, NW cor. SW NW, Section 16-3-5w, had gas sand at 1,766-80 feet with 9,000,000 feet of gas. Marland Oil Co. has made a location for No. 3 Binkes, SW cor. SE NE, Section 17-3-5w. The rig and tools are in for No. 2 Woods, NW cor. SE NE, Section 17-3-5w. Carter Oil Co. has a rotary rig in for No. 1 Harrison, SE cor. SE, Section 21-3-5w. No. 1, SW cor. SW, Section 22-3-5w, had sand at 1,387-97 feet and pumped 45 bbls. Magnolia Petroleum Co. has built the rig for No. 1 Graham, NW cor. SE NW, Section 25-3-5w. Carter Oil Co.'s No. 4, NW cor. SE SW, Section 27-3-5w, had sand at 1,318-20 feet, and made 13,000,000 feet of gas. Briscoe & Hall's No. 4, SW cor. NW SE, Section 34-3-5w, is dry and abandoned at 1,850 feet. Carter Oil Co. has made a location for No. 2 Abernathy, SE cor. NE SE, Section 34-3-5w. The location is also made for No. 5 Carter, SW cor. SE NE, Section 34-3-5w, and for No. 6 Carter, SE cor. SW NE, Section 34-3-5w. Magnolia Petroleum Co. is rigging up standard tools for No. 2 Mitchell, NE cor. SE NW, Section 34-3-5w.

Stephens County

Magnolia Petroleum Co.'s No. 1, SW cor. NE NW, Section 1-2-5w, is drilling at 450 feet. Westheimer & Daube's No. 2, NW cor. NW, Section 19-2-9w, had gravel at 1,981-84 fee t and swabbed 14 bbls. The location has been made for No. 1 Watson, SE cor. SE, Section 15-2-10w. No. 2 Zeigler, NE cor. SE NE, Section 24-2-10w, is dry and abandoned at 2,107 feet. Beard & Kolb's No. 4 Brigham, NW cor. SW SW, Section 30-1s-8w, is drilling at 110 feet. No. 3, SW cor. NW SW, Section 30-1s-8w, had sand at 1,966-90 feet and pumped 75 bbls. McMan Oil Co.'s No. 11, NE cor. NW, Section 33-1s-3w, had sand at 2,695-2,703 feet, and pumped 50 bbls. Gamble & Gant's No. 2, NE cor. NE, Section 36-1s-9w, pumped 25 bbls. from sand at 2,207-12 feet.

Garvin County

Magnolia Petroleum Co. has made a location for No. 7 Wyatt, NW cor. SW NW, Section 13-1-3w. Mid-Continent Petroleum Corp. has made a location for No. 5, C NW SE, Section 17-1-3w.

Murray County

Humble Oil Co.'s No. 1, NE cor. SE NW, Section 4-2s-3, is dry and abandoned at 2,778 feet.

Marshall County

Humble Oil Co. has spudded No. 2, NE cor. NE, Section 25-5s-5.

Cleveland County

Daniels & Lewright have cemented the surface casing in No. 1, C SW, Section 15-7-1w.

Kay County

Mississippi Valley Oil Co.'s No. 1-A, C NW NE, Section 3-27-2, is dry and abandoned at 3,670 feet. Harold Petroleum Co.'s No. 5, SW cor. NW SW, Section 4-27-1w, made 350 bbls. naturally from sand at 3,445-47½ feet. Tidal Oil Co.'s No. 2, C NW SE, Section 8-27-1w, sand at 3,456-70 feet, and pumped 70 bbls. This is an old gas well which went to oil. Mississippi Valley Oil Co. has a rig on the ground for No. 2, C SE NE Section 3-27-2. Mid-Continent Petroleum Corp.'s No. 3, SW cor. SE SW, Section 16-29-1w, had sand at 3,443-64 feet and made 1,284 bbls. Prairie Oil & Gas Co.'s No. 4-A, SE cor. SE, Section 1-26-2w, had sand at 4,544-60 feet and made 140 bbls. naturally. Marland Oil Co.'s No. 2, NE cor. SW, Section 12-26-2w, made 60 bbls. naturally from sand at 2,934-2,960 feet, and made 65 bbls. after a shot of 30 quarts.

Kay County New Work

Comar Oil Co. has built the rig for No. 4-W Day, NE cor. SE SE, Section 20-29-1w. The rig is on the ground for No. 13-W Duncan, NW cor. SW SW, Section 21-29-1w. A rig is also on the ground for No. 12-W Pribboth, SW cor. NE NW, Section 21-29-1w. The rig is built for No. 2 Bixley, NE cor. SW NW, Section 28-29-1w. Marland Oil Co. has made a location for a 2,900-foot test in No. 10 North, SW cor. NE, Section 12-26-2w. No. 1, NW cor. SE, Section 12-26-2w, is also a location.

Hughes County

Mid-Continent Petroleum Corp.'s No. 1, NE cor. NW NW, Section 21-10-9, had sand at 3,240-55 feet with 55,000,000 feet of gas. Minnehoma Oil Co.'s No. 5, NE cor. NE, Section 1-9-9, had sand at 2,922-45 feet with 5,000,000 feet of gas. It is not completed. Roxana Petroleum Corp.'s No. 1, NW cor. NE, Section 35-9-9, made 400 bbls. naturally from sand at 3,349-61 feet. Independent Oil & Gas Co.'s No. 1, SW cor. NW, Section 28-8-9, is dry and abandoned at 4,655 feet. Magnolia Petroleum Corp.'s No. 1, NW cor. SW, Section 28-8-9, is dry and abandoned at 3,605 feet. No. 1, SE cor. SE NE, Section 29-8-9, is dry and abandoned at 3,598 feet. Dixie Oil Co.'s No. 9, NW cor. NE, Section 5-7-8, had sand at 4,176-93 feet and swabbed 120 bbls. after a shot of 10 quarts. Magnolia Petroleum Co.'s No. 2, SE cor. SW NE, Section 6-7-8, made 9 bbls. of oil and 84 bbls. of water from sand at 4,197-4,209 feet.

Okmulgee County

Labene and others' No. 1, NW cor. SE SW, Section 23-15-11, had a hole full of water in sand at 2,812-45 feet, and was plugged back to sand at 2,240-45 feet and shut in with 2,000,000 feet of gas. Abbott & Dillard and the Carter Oil Co.'s No. 2, NE cor. SE SW, Section 24-14-11, is dry and abandoned at 2,788 feet. Kirkland and others' No. 1, CNL SE NW, Section 17-15-13, is dry and abandoned at 2,610 feet. W. B. Pine's No. 3, SW cor. SW, Section 3-15-14, had sand at 1,611-17 feet, and was shot with 40 quarts and made 65 bbls. Hennessey and others' No. 6, CWL SE SW, Section 8-15-14, is dry and abandoned at 1,935 feet. W. B. Pine's No. 3, NE cor. NE, Section 9-15-14, had 3,000,000 feet of gas in sand at 1,532-42 feet and is drilling ahead. McCulloch Oil Co.'s No. 5, C SE SW, Section 16-15-14, is making 160 bbls. from sand at 2,357-60 feet, and will be shot. It is not completed. The Texas Company's No. 12, CSL NE SW SE, Section 16-15-14, made 100 bbls. from sand at 2,370-80 feet after a shot of 30 quarts. No. 14, C SE SE, Section 16-15-14, made 100 bbls. naturally from sand at 2,370-77 feet. A. W. Klein's No. 1, NW cor. NE, Section 19-15-14, is dry and abandoned at 2,436 feet. X-Ray Oil Co.'s No. 3, SW cor. SE NE, Section 24-14-13, is dry and abandoned at 2,661 feet. George Simon's No. 3, NE cor. NW SW, Section 19-14-14, is dry and abandoned at 2,653 feet. Culp and others' No. 5, CEL NE SE, Section 30-15-15, is estimated at 300 bbls. in sand at 1,549-52 feet, and is not completed. Plymouth Petroleum Co.'s No. 2, SW cor. NE NW, Section 32-15-15, is dry and abandoned at 1,820 feet. Future Development Co.'s No. 1, SW cor. NW, Section 35-15-15, made 160 bbls. after a shot of 60 quarts in sand at 2,059-87 feet. Rebold and others' No. 2, NE cor. NW, Section 27-13-11, had 7,000,000 feet of gas in the top of the sand at 2,185 feet, and is being cleaned out. Simms Oil Co. has a dry hole in No. 19, NE cor. SW SW, Section 15-13-14, which is abandoned at 1,944 feet. Cumberland Petroleum Co.'s No. 3, CNL NE NW, Section 21-13-14, had sand at 1,640-70 feet, and was shot with 10 quarts and made 10 bbls. Iron Mountain Oil Co.'s No. 12, NE cor. SW NW, Section 24-13-14, had a hole full of water at 2,074 feet, and was plugged back to sand at 1,290-1,310 feet and shot with 40 quarts, and made 10 bbls. Kingwood Oil Co. has a dry hole at 814 feet in No. 4, SE cor. SW, Section 6-13-15.

Okmulgee County New Work

Enfisco Oil Co. has spudded No. 2, NE cor. NW, Section 3-15-11. Labene and others have spudded No. 4, C SE NE, Section 22-15-11. The Empire Gas & Fuel Co. and W. T. Campbell have spudded No. 2, NE cor. NW SE, Section 3-15-12. C. L. McMahon has spudded No. 2, CEL SW SE, Section 9-15-12. W. B. Pine is drilling at 900 feet in No. 1, NW cor. SE SE, Section 9-15-12. C. E. Campbell has spudded No. 4, C NW SW, Section 24-15-12. McCulloch Oil Co. has spudded No. 10, C NE NE, Section 21-15-14. E. L. Kistler is drilling at 1,100 feet in No. 6, CNL NW SW, Section 29-15-13. E. R. Black has spudded No. 1, NW cor. NE NE, Section 10-13-10. Elm Oil Co. is drilling at 600 feet in No. 8, SW cor. NE NW, Section 28-13-14. W. B. Pine has a rig on the ground for No. 2 Bighead, SW cor. NE SE, Section 9-15-12. Speary Brothers have spudded No. 1 Gibson, NE cor. SE. Section 12-14-12. McCulloch Oil Co. has spudded

(Continued on Page 138)

TWO FAIR COMPLETIONS IN BUTLER AND GREENWOOD COUNTIES, KANSAS

By J. L. Dwyer
Staff Correspondent, Kansas Fields

In Butler County, T. C. Johnson's No. 6 Blakeman, SE cor. NW SW Section 3-28-6, swabbed 105 bbls. from Mississippi lime topped at 2,790 feet.

In southern Kansas, the two rotary wells which the Marland Oil Co. started are drilling on down, No. 3 Graham, in Section 15-32-4, is drilling at 3,000 feet, and No. 2 Graham in the same section, is drilling at 2,600 feet.

In Greenwood County, the Empire Gas & Fuel Co.'s No. 1, SW cor. SE SE Section 25-22-12, swabbed 380 bbls from the second break in the lime. The depth of this well is not available.

Rice County

Phillips Petroleum Co. has spudded No. 2, NW cor. SE NW, Section 35-20-6w. Preston & Pasewalk are drilling at 515 feet in No. 3, C NE Section 27-18-7. Empire Gas & Fuel Co.'s No. 2, C SW Section 31-18-7, is dry and abandoned at 1,289 feet. Klein and others' have the rig and tools in for No. 1 McCallum, SW cor. NE NW, Section 17-19-7. Prairie Oil & Gas Co.'s No. 2, SE cor. SE Section 34-20-6w, had chat 3-363-3,453 feet, and is estimated at 250 bbls.

Reno County

Hopper andothers' No. 1 NW cor. NW, Section 7-26-7w, is dry and abandoned at 4,305 feet. Eben Pyle has spudded No. 1 NE cor. SE, Section 20-27-7w.

Kingman County

Phillips Petroleum Co.'s No. 1, C NW, Section 16-28-8w, is dry and abandoned at 4,177 feet.

Elk County

Watchorn Oil & Gas Co.'s No. 1, CEL NE SW, Section 23-29-10, is dry and abandoned at 2,460 feet. J. S. Cosden and others' No. 6 Dunkleburg, CWL NW NW, Section 34-29-10, had sand 1,975-1,990 feet and was shot with 60 quarts and made 15 bbls. Pure Oil Co.'s No. 12, CNL NW SE, Section 14-31-10, made 300 bbls. naturally from sand 1,631-42 feet. Union Gas Co.'s No. 17, SE cor. NE NE, Section 14-31-10, made 75 bbls. oil and 25 bbls. water from sand 1,607-16 feet. Watchorn Oil & Gas Co.'s No. 6, CEL SE NW, Section 3-30-9, made 25 bbls. after a shot of 60 quarts in sand 2,352-78 feet.

Elk County New Work

Denton and others' No. 9 fee, NE cor. NE, Section 4-30-9, is drilling at 650 feet. Pure Oil Co. has rigged up No. 13 Chaffin, NW cor. NE SE, Section 14-31-10. No. 14 Chaffin, NW cor. SE, Section 14-31-10, is rigging up. J. S. Cosden is drilling at 450 feet in No. 1, SE cor. NW, Section 22-31-10. Union Gas Co.'s No. 13 Webb, NW cor. NE, Section 23-31-10, is drilling at 400 feet.

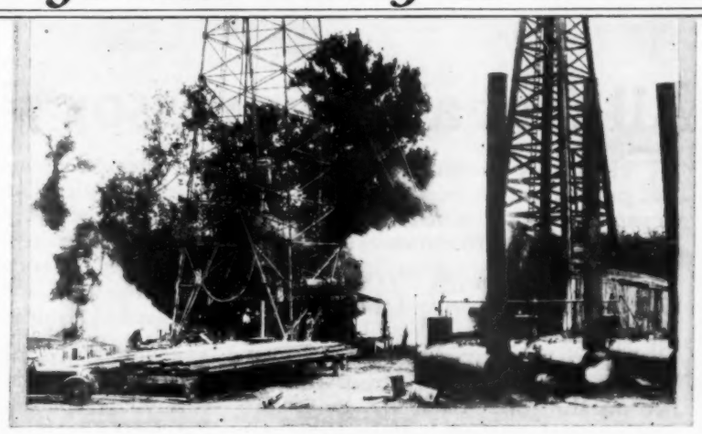
Greenwood County

Phillips Petroleum Co.'s No. 1, NE cor. NE, Section 11-22-10, had sand 2,026-2,118 feet, and made 90 bbls. after being shot with 180, and with 100 quarts. Syndicate Oil Co.'s No. 2, NE cor. SE SE, Section 2-22-10, had sand at 2,038-93 feet, and made 150 bbls. after a shot of 300 quarts. No. 3, NW cor. SW SW, Section 1-22-10, made 200 bbls. after a shot of 220 quarts in sand at 2,015-80 feet. Greenland Oil Co.'s No. 9, SW cor. NE SE, Section 10-23-9, had sand 2,332-72 feet, and made 100 bbls. after a shot of 80 quarts. Skelly Oil Co.'s No. 6, SW cor. SE NE, Section 15-23-9, had

(Continued on Page 135)

Magnolia Petroleum Co. derricks at Wewoka, Okla.

Three Years Ago and Today at Wewoka



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"THREE years ago, a well was drilled at Wewoka, Okla. with a wood rig. It was a dry hole. Today, within a few feet of it, is a giant Moore Rotary Driller, with which the owners will drill another hole, a much deeper one—in a second attempt to strike oil." (See photo).

This simple statement is typical of what has been going on in the oil business for the past five or ten years. "Deeper and deeper" has become the battle cry of the drilling industry.

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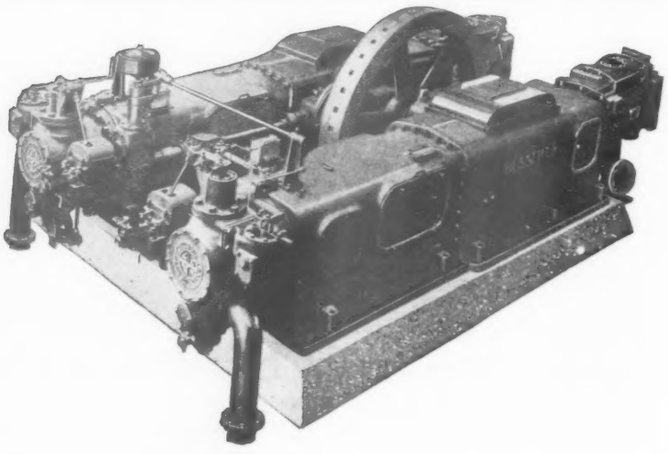

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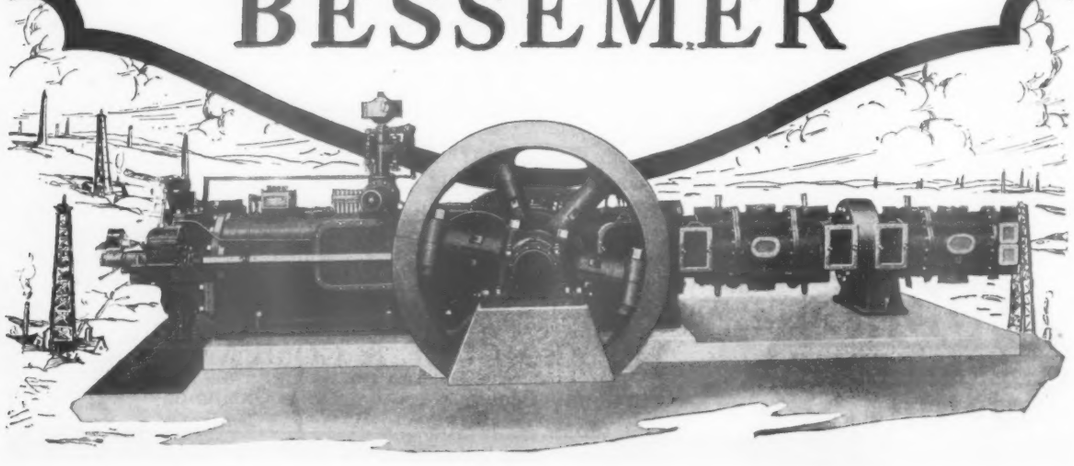

Arkansas Wildcat Produces 13.6 Oil

Heaviest Crude Yet Discovered in Division. Shift Tail Well Making 1,000 Bbls. Goes Dead but Revives

By James H. Dameron
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Nov. 15.—H. L. Hunt's wildcat test in Union County, Arkansas, No. 1 Dykes, Section 21-18-12, was one of the spots of interest last week when it was tested. It was swabbed and made 2,500 bbls of fluid, 100 bbls. of very low gravity oil from sand at 2,571-75 feet. The oil is the heaviest discovered in the division and it tested 13.6 corrected gravity. It is a heavy, black and viscous crude. Chilled by the cold air the crude was more viscous and resembled tar.

The Hunt well is several miles southeast of the biggest wildcat play in the Lawson sector. Hunt's test will probably be produced a couple of more days and deepened if it does not show any better. Up in Section 9-18-13 Natural Gas & Fuel Corp.'s No. 1 Cordell was dry in sand at 2,511-16 feet and is to be deepened. Matthews and associates' No. 1 Lewis, Section 14-19-12, cored salt water sand at 2,678 feet and is to be deepened.

About 10 miles north of Winnfield, J. C. Long's shallow test, No. 1 Milam, Section 28-13-3w, drilled the plug at 684 feet and started bailing. The test could not be bailed down more than 200 feet from the top because of the fresh water coming into the hole. It is believed the casing seat is not holding and casing is to be recemented.

In Bossier Parish Woodley and Collins' No. 1 Robertson, Section 22-23-12, had 4 feet of cap rock at 2,696 to 2,700 feet. Beneath the rock the core barrel revealed two feet of sand showing oil. Eight and one-quarter inch casing is being set on top of the cap rock for a test.

Went Dead But Revived

The antics of The Texas Company's No. 1 Curtis, Section 14-15-20, in the Shift Tail Lake district of Caddo Parish, attracted considerable attention. On Monday of last week the well's production dropped down to 165 bbls. and on Tuesday it went dead. The well had been making close to 1,000 bbls. a day. Wednesday the well came back making around 900 bbls. and has been holding up steadily since. The east offset to the well, No. 2 Curtis, which came in last week flowing 30 bbls. an hour, is making close to 400 bbls. daily.

No little attention is being showered on Richland Parish, where the Gulf Refining Co.'s wildcat test, 12 miles southeast of the Monroe Gas Field, blew in from an entirely different producing horizon than that of Monroe and is making 5,000,000 feet of gas and a batch of fresh water. During the past week operators evinced a little more interest in that wildcat territory and considerable acreage has changed hands. Especially those companies interested in gas production have been purchasing in that area. Some of the major operators felt encouraged to buy in that sector on the strength of the gas showing.

For the first time in many months the giant Smackover Field came near being blanked in turning in oil wells during a seven-day period. Only one well was completed in Smackover last week. The Ohio Oil Co. completed a small pumper on the Quachita County side of the Field. Two wells were completed in the Lisbon Field. Arkansas' completions for the week totaled 9, 5 failures and 4 oil wells, with a combined production of only 90 bbls.

Louisiana Producers

Louisiana fared considerably better, with 10 oil wells producing 932 bbls. of new production. One good well in Caddo and two others, one in Caddo and the other in Uranin, each good for 100 bbls., boosted the report from Louisiana. Nine failures from all parts of the northern part of the state were turned in. Only one gas well was completed and that was a shallow producer in Caddo.

Field work for the past two months has been on a steady decline and more noticeable during the past month. The past seven days were no exception and another decrease brought the number of wells actually drilling down to 206 for the entire division. The wildcat play in both states is on the downward trend. The bulk of Arkansas' wildcat drilling is being carried on in Union County and many of the tests in other counties are shut down.

In Louisiana the Caldwell-Angelina flexure is still getting the bulk of the play, but like other areas its prominence is slipping. Tests to the north of the flexure are being kept up to the number that usually shows the average of that territory. In the opinion of most operators drilling will continue to decline until spring unless a new field is discovered. Most of the major companies have used about all of their wildcat budget and many of the companies obligated to drill several tests this year and during the first part of next year have almost drilled their required number of tests.

Production Declines

Production in the division took another tumble and went off more than 2,000 bbls. to bring the daily average close to the 200,000-bbls.-a-day mark. Although two new fields were developed in the district during the year production at this time is approximately 30,000 bbls. per day less than it was the first of the year. Neither of the new fields went over 20,000 bbls. daily during their peak.

The biggest loss in daily average came from Arkansas when all fields but Stephens and Nevada showed losses. Their gains were slight. In Louisiana Urania, Caddo heavy and Cotton Valley made slight gains, while all other fields went down.

PRODUCTION BY FIELDS

Louisiana

Bellevue	1,820
Caddo light	10,480
Caddo heavy	3,855
DeSoto and Red River	4,120
Elm Grove	525
Cotton Valley	6,960
Haynesville	8,800
Homer	5,510
Urania	14,855
Total	56,925

Arkansas

Smackover heavy	114,010
Smackover light	13,735
El Dorado	6,480
Lisbon	6,665
Nevada	1,950
Stephens	1,540
Total	144,380
Total both fields	201,305
Total last week	203,720
Loss	2,415

Caddo Parish

The Texas Company's No. 2 Curtis, Section 14-20-15, was the banner well of Caddo during the week when it was completed making 500 bbls. naturally from sand at 2,200-09 feet. Another good completion was The Texas Company's No. 55 Harrell, Section 4-21-16, in the northwest part of the field. It made 112 bbls. on the pump the first 21 hours from sand at 2,361-69 feet. Bayou State Oil Co.'s No. 24 Peak, Section 23-22-15, is a 25-bbl. pumper at 1,040 feet. Gulf Refining Co.'s No. 255 Ferry Lake, Section 22-20-16, was good for 5 bbls. on the pump at 2,270 feet. Superior Oil Co.'s No. 7 Youree, Section 26-20-15, was completed in the Nacatoch sand at 793 feet for a 500,000 foot gas well. The Texas Company's No. 65 Caddo Levee Board, Section 33-21-16, is making 50 bbls. on the pump from sand at 1,826 feet. Thomason and associates' No. 2 Mulsow fee, Section 31-21-15, was a 10-bbl. pumper at 1,650 feet. Unity Petroleum Co.'s No. 10 Crystal fee, Section 13-21-16, tested salt water at 1,060 feet and was abandoned. Victor Wenzell's No. 2 Wemple, Section 14-20-15, was dry and abandoned at 2,278 feet.

Of the deep zone tests in Caddo, the hole is clean at Dixie Oil Co.'s No. 1 Jolly, Section 27-22-15, and the test is going ahead at 4,415 feet. Dixie Oil Co.'s No. 10 Slattery, Section 27-21-15, is fishing for the drill stem at 3,400 feet. Magnolia Petroleum Co.'s No. 16 Dillon, Section 24-21-15, is flowing salt water from 3,680 feet. Twenty-one joints of the drill stem are being fished out at 4,101 feet at Magnolia company's No. 1 Wiley Bradford, Section 24-21-15. The Texas Company's No. 42 C. M. L. Co., Section 23-21-15, is flowing 50 bbls. of oil from 3,907 feet and is being cleaned out.

Other Operations

Ackerman and associates' No. 1 Payne, 300 feet north and 200 feet east SW NW NW, Section 35-23-16, is a rig. Bethany Oil & Gas Co.'s No. 1 Smith, Section 1-20-16, is drilling at 1,014 feet. Bayou State Oil Co.'s No. 25 Peak, Section 23-22-15, is drilling at 490 feet. Bussa and associates' No. 8 Allen, Section 23-22-15, is drilling at 250 feet. Camp Oil Co.'s No. 1 United States Government land, Section 8-20-16, is being rigged. W. H. Cook's No. 1 Muslow, Section 32-21-15, tested 3 bbls. of oil at 1,615 feet and is to be deepened. Dixie Oil Co.'s No. 80 Robertshaw, Section 12-21-15, is drilling at 280 feet; No. 81, Section 13-21-15, is drilling at 2,297 feet.

Empire Gas & Fuel Co.'s No. 1 Caddo Levee Board, 1,700 feet west and 660 feet north SE cor., Section 36-21-16, is a rig. Golden Flood Oil Co.'s No. 2 Atkins, Section 31-21-15, is waiting for a standard rig at 1,697 feet. Six-inch casing was cemented at 2,205 feet at Gulf Refining Co.'s No. 1 Wemple, Section 14-20-15; No. 2 cored oil sand at 2,207-10 feet. Magnolia Petroleum Co.'s No. 1 Waterman Lumber Co., Section 18-17-16, has spudded. Magnolia company's No. 2 Wemple, Section 14-20-15, is drilling shale and sand at 1,800 feet; 6-inch casing was cemented at 2,198 feet at No. 2. Six-inch casing was cemented at 1,480 feet at Ohio Oil Co.'s No. 23 E. K. Smith, Section 7-21-14. Ohio company's No. 1 Caddo Levee Board, Section 28-23-15, cored shale at 2,776 feet. Ramsey and associates' No. 10 Powell, Section 36-22-

(Continued on Page 129)

LAWSON AREA TEST DISAPPOINTING; LOUISIANA WILDCATS ABANDONED

By James H. Dameron

EL DORADO, Ark., Nov. 13.—H. L. Hunt's wildcat in the Lawson area, No. 1 Dykes, Section 21-18-12, proved a disappointment when sand at 2,671-74 feet tested salt water with a showing of dead oil. The well started flowing salt water after being bailed. The oil tested 13.6 degrees (corrected) Baume gravity. Upon examination of cores in the field several days ago the test looked promising. The crude bailed from the test is the lowest gravity that has been discovered in Arkansas. Nevada crude heretofore was the lowest. It tests around 14.3 gravity. Arrangements are being made to deepen the Hunt test.

A 2,700-foot test a couple of miles west of production in the north part of the Lisbon Field was a duster. Magnolia Petroleum Co.'s test in Bradley County, about 22 miles east of Smackover, showed a little gas in sand at 3,314-24 feet and is to be tested.

In Louisiana, three wildcats around or below 3,000 feet were failures and three others were abandoned in shallower depths.

Union County

Owens and associates' No. 1 Duke, Section 6-17-16, was dry and abandoned at 2,745 feet. Bonderant and associates' No. 1 Garner, Section 8-18-12, is drilling at 2,430 feet. Calgo Oil Co.'s No. 1 Primm, Section 9-18-17, is waiting for 8-inch casing so sand at 2,813-15 feet can be tested. Gulf Refining Co.'s No. 1-A Slaughter, Section 20-17-16, is drilling at 2,733 feet. H. L. Hunt's No. 1 Dykes, Section 21-18-12, tested a show of dead oil and salt water in sand at 2,671-74 feet and is drilling ahead. E. M. Jones' No. 9 Murphy, Section 17-16-15, is drilling at 3,670 feet. Marine Oil Co. cemented the bottom of the hole at 2,537 feet at No. 1 Thompson, Section 10-18-13. Matthews and associates' No. 1 Lewis, Section 14-19-12, is drilling sand at 2,664 feet. H. O. Meller's No. 1 Hill, Section 10-18-16, is coring at 2,570 feet. A short string of 4½-inch casing was cemented at 2,507 feet at Natural Gas & Fuel Corp.'s No. 1 Cordell, Section 9-18-13. Peer Oil Corp.'s No. 1 Hollis, Section 36-18-12, is going through a boulder at 1,050 feet that fell in the hole. The hole was down 2,603 feet and the boulder fell in with cavings while the test was shut down. Casing was shot at 2,520 feet at Simms Oil Co. and Sun Oil Co.'s No. 1 Simmons, Section 9-18-13. The test started off making 20,000,000 feet of gas and spraying salt water then died. Casing is to be pulled and the test abandoned. Southern Crude Oil Purchasing Co.'s No. 1 Hill, Section 5-18-13, is being bailed. Four hundred feet of fluid, half oil and half water, from sand at 2,517-25 feet is standing in the hole. Twelve and one-half-inch casing was set at 162 feet at Superior Oil Corp.'s No. 1 Cordell, Section 5-18-13. Wingfield and associates' No. 1 Morrison, Section 3-19-13, is drilling in gumbo at 1,415 feet.

Bradley County

Arkansas Fuel Oil Co.'s No. 1 Arkansas Timber Co., Section 25-16-12, is drilling at 2,175 feet. Magnolia Petroleum Co.'s No. 1 Arkansas Timber Co., Section 33-15-11, cored sand at 3,314-24 feet showing gas. A string of 6⅝-inch casing is being cemented at 3,314 feet. Phillips Petroleum Co.'s No. 1 Southern Lumber Co., Section 36-16-11, is drilling at 3,037 feet.

Bossier Parish

Benton Syndicate's No. 1 Bulkley, Section 9-20-13, reported abandoned several weeks ago at 1,475 feet is to be drilled deeper. The test is shut down at 1,594 feet waiting for fuel. Tubbs and associates' No. 1 Jacobs, Section 26-20-13, is shut down at 60 feet. Eight-inch casing was set at 2,696 feet to test sand at 2,700-02 feet at Woodley & Collins' No. 1 Roberson, Section 22-23-12.

Caldwell Parish

E. V. Wenzell's No. 1 Shaw, Section 22-14-4e, formerly Hincey & Mack's No. 1, is drilling at 1,100 feet.

Catahoula Parish

S. D. Hunter's No. 1 Tensas Delta,

(Continued on Page 99)

Humble Gets Well in Kleberg County

Test 7 Miles Southeast of Kingsville Flowing 175 Bbls. From 2,280 Feet. Best Well in That Field

By B. D. Stevenson
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., Nov. 15.—Humble Oil & Refining Co.'s No. 1-B Dennett in the southeast corner of Block 19 of Section 38 of the Kleberg Town & Improvement Co. lands in Kleberg County, 7 miles southeast of Kingsville, the county seat, is estimated to be flowing 175 to 200 bbls. of pipeline oil a day making heads about every hour and half from 2,280 feet. It makes the sixth oil well to be completed in the field but with thicker sand and bigger production. The Humble drilled the discovery well in that field more than a year ago in submerged lands of the state in an arm of Baffin's Bay and got oil at 2,150 feet. There has been some water trouble with it and with others. The company moved farther to the north, the No. 1-B Dennett being a mile northeast of the discovery well. It has been working along slowly from 2,022 feet where it got its first oil sand and set 10-inch casing at 2,016 feet. It is now in 30 feet of sand at 2,280 feet which is the fourth sand. It has tested the sands by setting 4½-inch liner with packer and the sand above the last sand pumped 100 bbls. of oil the first day. The fourth sand is much thicker.

The well is 360 feet north of No. 2 Kleberg trustee which is a small well on the pump at 2,052 feet and 360 feet east of it is No. 1-C Dennett which is down with 6⅝-inch casing set a little below 2,000 feet and bottom of the hole below 2,200 feet. Both of these wells could be quickly deepened to the new sand. From the fact that Humble set 10-inch at 2,016 feet in the No. 1-B Dennett it is believed that its intention was to carry the hole on down. The No. 1-C Dennett has been going down alongside of the No. 1-B Bennett but waiting at each sand for the No. 1-B Dennett to test ahead.

Two Miles East of Gasser

The discovery well drilled by the Kleberg County Oil Co. is about 2 miles west of the No. 1-B Dennett. It was drilled several years ago and it and other wells are supplying Kingsville with natural gas. Its depth is 2,143 feet. A quarter mile south of the No. 1-B Denneet the No. 1 Kleberg trustee is a gas well at 2,129 feet. A little less than a half mile southwest of it Humble's No. 2 Flato is producing about 25 bbls. of oil at a depth of 2,930 feet and No. 1 Flato was drilled to 5,205 feet and passed seven sands that failed to yield commercial production but disclosed that there are plenty of sands in the field. One mile west of these last two wells, No. 1 Kissman is producing gas at 2,900 feet. It was drilled to 4,521 feet and plugged back. If the field runs to the northwest as the present layout of holes would indicate it can go but a half mile before it is off of the Humble's block of leases. The Gulf has the offset 40 acres to the west and The Texas Company has two 40 acre tracts to the north.

Laredo Completions

One 50,000,000-foot gasser and six oil wells with a combined production of 350 bbls. a day is the record for last week in the Mirando pools. Magnolia Petroleum Co. completed No. B-15 and B-16 Martinez in Survey 276 in the Henne, Winch & Fariss Pool, each estimated at 100 bbls. a day, No. B-15 at 2,018 feet and No. B-16 at 2,092 feet. In the Randado Field in Jim Hogg County there were three completions. Johnson and others completed No. 14 Palacious in Block No. 3, Survey 291, at 1,281 feet, estimated at 60 bbls., and No. 18 Palacious, in Block 3, Survey 291, at 1,285 feet, estimated at 75 bbls., and M. J. Bashara completed No. 3 Weil in Block 8, Survey 81, depth not reported, estimated at 50 bbls. The other oil completion was in the Mid-Ojuelos area by Murchison & Fain. Their No. 4 Garcia in Survey 58, at 1,618 feet, is estimated at 15 bbls. The gasser completed was by O. W. Killam in the Cole Field and is his No. 7 Lopez, completed at 1,770 feet in Block 8 of Survey 319 and estimated at 50,000,000 feet.

In the Bruni tract extension of the Aviator Pool the Crown Central Petroleum Corp. tested dry in No. 19 Bruni in Block 15 at 1,714 feet, the producing depth of the field, but is not reported abandoned.

Cole Field—Duval County

Cole Petroleum Co.'s No. 23 Benavides, Survey 8, Block 9, located 150 feet to southwest and northwest lines, is drilling at 2,276 feet; No. 28 Benavides, Survey 13, Block 15, located 450 feet to northwest line and 1,050 feet to northeast lines, has spudded in. O. W. Killam's No. 7 Lopez, Block 8, Survey 319, located 450 feet to north and east lines, set casing at 1,759 feet and is testing sand at 1,759-65 feet. Houston Oil Co.'s No. 1 "A" Lopez, Survey 26, Block 6, 45 feet to northeast line and 155 feet to southeast lines, has spudded in.

Piedras Pintas Salt Dome

Humble Oil & Refining Co.'s No. 6 Walsh, Survey 185, located 364 feet northwest of No. 4 Walsh, did not test on pump satisfactory, and well with No. 4 Walsh has been put on compressed air; No. 1 Beecher, Survey 531, located 480 feet to north line and 2,075 feet to west line, has pulled screen at 3,206 feet and is drilling deeper. Gulf Production Co.'s No. 1 Tinney, Survey 8, located 800 feet to south line and 100 feet to west lines, is drilling.

O'Hern & Seacord Pool

Associated Oil Co.'s No. 1 S. Benavides, located 600 feet to northwest and northeast lines of S. Benavides tract at 1,552 feet, made 25,000,000 feet of gas with rock pressure of 455 pounds. Buffam and others' No. 1 J. Benavides, Block 38, Subdivision 1, Mesquite ranch, located 150 feet to northeast lines and 175 feet to northwest lines, has new sand at 1,713 feet. O'Hern & Seacord's No. 2 Benavides, Survey 174, Block 12, has been abandoned at 2,773 feet; No. 3 "A" Benavides, Survey 174, Block 12, south of the discovery well is drilling at 900 feet. John Marris, Block 454, located 200 feet to southeast and northeast lines, and located southwest of the O'Hern & Seacord Pool has made location.

Randado Pool—Jim Hogg County

Johnson and others' No. 14 Palacious, Survey 291, Block 3, located 150 feet to north and west lines is testing at 1,278 feet, and is also testing No. 18 Palacious, same survey and block, located 150 feet to south and 750 feet to west lines at 1,282 feet; in Block 2, Survey 291, they are moving on 150 feet to north line and 450 feet to west lines for No. 19 Palacious. Simms Oil Co.'s No. 6 Weil, which has been standing in Survey 81, Block 8, at 1,714 feet has resumed drilling; No. 7 Weil, Survey 81, Block 7, located 510 feet to north line and 150 feet to west line, was plugged back to 1,310 feet and made 10 bbls. daily; No. 17 Palacious, northwest quarter of Survey 291, located 750 feet to north line and 450 feet to east line, made 125 bbls. at 1,282 feet; in same survey 1,050 feet to north line and 500 feet to east line is moving on for No. 18 Palacious. Magnolia Petroleum Co.'s No. 10 Merchants State Bank, Survey 415, 150 feet to north line and 1,000 feet to west line made 55 bbls. from depth of 1,239 feet; No. 12 Merchants State Bank is location in Survey 415, located 150 feet to north line and 200 feet to west line; No. 14 de la Garza, Survey 291, Block 6, located 150 feet to north line and 750 feet to west line, at 1,285-87 feet made 50 bbls. production. M. J. Bashara's No. 3 Weil, Survey 81, Block 8, located 300 feet west of No. 2 and 300 feet west of No. 1, is drilling at 1,200 feet. D. C. Smith's No. 1 Weil, Survey 83, Block 1, located 450 feet to north line and 150 feet to west line, is drilling beyond 2,300 feet. Moody-Morgan's No. 2 Palacious, Survey 291, Block 12, located 330 feet to north line and 150 feet to east line, is ready to spud in.

Henne, Winch & Fariss Pool

Magnolia Petroleum Co.'s No. 15 "B" Martinez, Survey 276, located 1,674 feet to east line and 1,020 feet to north line, is setting casing; No. 16 "B" Martinez, same survey, 1,400 feet to east line and north lines, is setting casing in sand at 2,085 feet, and moving in Star rig to drill in with; No. 17 "B" Martinez, same survey, 1,050 feet to east line and 1,400 feet to north line, is moving in; No. 18 "B" Martinez, same survey, 1,700 feet to east line and 2,150 feet to north line, is derrick.

Kitselman & St. Albans Pool

K. & S. Corp.'s No. 49 Holbein, Survey 11, Block 11, located 66 feet to north line and 40 feet to east line, is testing sand reached at 2,145-50 feet; No. 51 Holbein, same survey, Block 5, located 420 feet to north line and 255 feet to west line, drilling at 2,100 feet; No. 53 Holbein, same survey, Block 4, located 150 feet to north line and 30 feet to west line, is moving on; same survey, Block 22, 208 feet to east line and 20 feet to north line, derrick is up for No. 54 Holbein. Associated Oil Co.'s No. 1 "B" Lopez, Block 20, Share 1, located 600 feet to south line and 414 feet to west line, is fishing at 3,360 feet.

Aviator Pool—Webb County

Sun Oil Co.'s No. 8 Bruni, Block 44, located 810 feet to east line and 1,120 feet to north line, from total depth of 1,701 feet, made 20 bbls. Crown Central Oil Corp.'s No. 19 Bruni, Block 15, located 450 feet to north and west lines, is testing sand at 1,710-14 feet; derrick is up in Block 17, at 668 feet to east line and 1,300 feet to north line for No. 20 Bruni. Associated Oil Co.'s No. 5 Bruni, south half of Block 44, located 1,150 feet to east line and 600 feet to north line, is rigging up. Staley-Wynne's No. 21 Bruni, west half of Block 18, located 660 feet to west line and 1,320 feet to north line, is setting casing. Wedgington-Niles' No. 2 Puig, Block 65, lo-

(Continued on Page 129)

TWO WILDCATS IN GONZALES COUNTY ARE READY TO BE TESTED THIS WEEK

By B. D. Stevenson

SAN ANTONIO, Tex., Nov. 15.—Two tests in Gonzales County which have had showings of oil for a month but have been held up from making tests by delayed casing will probably be tested inside of a week or less and each has a chance to open up something new. R. D. Kercheval and others' No. 1 A. S. Billings at Smiley in the southern part of Gonzales County with 1,063 feet of casing set and the bottom of the hole at 1,312 feet, has bailed oil from below the casing. It has been showing enough gas to burn at the mouth of the well.

The Martin Oil & Development Co.'s No. 1 Preston at Cheapside in Gonzales County, a little northeast of the Kercheval well, is down below 1,500 feet and had a showing of gas at 1,440 feet that made it look like a well. Casing was run in the hole last Friday and the test should be made early this week.

In Bexar County, the B. F. Thompson well topped the Georgetown formation at 1,543 feet. The test is located in eastern Bexar County 1 mile south of Zuehl. When a well in southwest Texas goes into the Austin chalk there is usually room for argument as to when and where it hits the chalk but no room for argument on the other formations. The geologists figure that this well is 70 feet high as compared with the Marland Oil Co.'s No. 1 Mihalski which is 3 miles southwest. The Thompson well should be in the top of the Edwards lime by the first of this week. It will core every 5 feet in the Edwards.

Duval County

Livingston & Baker's No. 1 J. Benavides, Subdivision 3, Block 1, located 150 feet to southwest line and 300 feet to southeast line, is drilling at 1,600 feet. Humble Oil & Refining Co.'s No. 11 Singer; 550 feet south of No. 10 in Survey 4, is drilling at 38 feet; No. 5 Schallert, Survey 255, located north central part, 2,100 feet to south line and 3,000 feet to west line, has been temporarily abandoned at 3,432 feet. Humble-Reiter-Foster's No. 1 Kohler, Survey 406, located 660 feet to south and east lines, is drilling at 2,237 feet; No. 2 Kohler, Survey 168, located 1,320 feet to south and east lines, is fishing at depth of 2,237 feet. Sun Oil Co.-Maddox-Goodman's No. 1 Carlyle, Survey 18, near Brooks County line at Copita, 150 feet to east line and 1,800 feet to south line, is drilling at 2,915 feet. The Texas Company-National Refining Co.'s No. 1 Dinn, Survey 668, located 200 feet to east and south lines, has been abandoned at 3,220 feet. Humble Oil & Refining Co.'s No. 1 Dowdy (fee) Survey 272, northern part of county, 425 feet to north and west lines, is drilling at 3,954 feet. H. B. Schlesinger's No. 1 Hall, Survey 76, located 660 feet to north and west lines, has derrick up.

Jim Hogg County

Edwards St. Albans' No. 1 Lopez, Survey 1, Block 19, located 150 feet to north and west lines, is moving on. Alworth Brothers' No. 1 Garza Survey 39, Block 4, located 681 feet to southeast line and 150 feet to southwest line, is in rock at 2,104 feet. Trussell-Cezeaux-Putman's No. 1 Palacious, Survey 232, Block 2, located 150 feet to north and west lines, is ready to spud in. Rydal-Rycade interests' No. 4 Vela Survey 1, Block 12, located 321 feet to west line and 300 feet to north line, has been abandoned at depth of 2,291 feet; No. 5 Vela, Survey 581, Block 29, located 150 feet to south and west lines, is moving on. O'Byrne and others' No. 1 Palacious, Survey 230, southwest 40 acres of Block 14, located 450 feet to west line and 150 feet to east line, drilling at depth of 2,470 feet.

Starr County

Danciger and Dauchy & Maddox's No. 1 Newmann, Survey 232 of Judd ranch, 980 feet to north line and 930 feet to east line, drilling at 1,000 feet. Deckle & McCarley's No. 1 Garcia, Survey 918, located 150 feet to south and west lines, standing at 1,300 feet. Pearson and others' No. 1 Peffley, Survey 933, located 250 feet to north and east lines, is drilling at 2,064 feet. Sterling & Suladie's No. 1 Yzaguirre are preparing to drill a 3,000-foot test near spot where Starr, Zapata and Jim Hogg County join to-

(Continued on Page 102)

Fire cannot reach oil protected by a Wiggins Roof

The photographs are four views of a test conducted to determine the effectiveness of the Wiggins Roof in resisting fire and protecting storage.

The test was carried out on a tank 12 feet 3 inches in diameter and 17 feet 6 inches high. The small diameter three-ring tank was used in the belief that it would present a worse condition than a tank of large diameter. Beneath the deck of the Wiggins Roof there were two feet of gasoline.

To test the caulking of the roof and the rigidity of the truss work gasoline was poured over the center of the roof and ignited. The fire lasted 5½ minutes, flames at times rising to a height of five or six feet above the top of the tank. The fire burned itself out on the roof without starting a fire in the tank and without damaging the roof or trusses.

In another test gasoline, covering the whole roof area and soaking the asbestos cloth of the seal, when ignited burned for thirteen minutes with the flames at times reaching ten to twelve feet in height. The fire did not ignite the gasoline beneath the roof and the roof itself suffered no damage whatever.

For the next test five gallons of gasoline were poured in a trench 18 inches wide extending around two-thirds of the tank circumference. Upon ignition the flames at some points reached above the top of the tank although the fire burned out without any fire being observed at the seal. This test was repeated after four gallons of gasoline were poured on the deck of the roof. The fire was as intense as before but did not ignite the gasoline on the roof, nor was any fire observed at the seal.

Wiggins Roofs stop fire and reduce evaporation to a minimum. They can be put on your present tanks to protect your storage and save the evaporation loss. We will be glad to quote you on Wiggins Roofs or on tanks and roofs complete.

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Gulf Coast Output Down 8,604 Bbls.

Decline in Spindletop 10,700 Bbls. New Saline Dome and Possible Oil Pool Near Liberty-Chambers Line

By P. L. McGreal
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., Nov. 15.—Fewer large wells in the deep sand section of the Spindletop Pool and a resulting decline in the daily average gross production there is reflected in a decrease of 8,604 bbls. in the estimated daily average gross output for the entire Coastal division from last week. The estimate for the week of October 13 is placed at 169,846 bbls., compared with 178,810 bbls. last week. The decrease for the Spindletop Pool alone is 10,700 bbls.

The estimate for each pool is as follows:

Pool—	Dy. Ave.
Boling	2,320
Batson	1,575
Blue Ridge	1,720
Barber Hill	1,100
Big Creek	1,430
Dayton	90
Damon Mound	900
Edgerly (La.)	615
Goose Creek	7,350
Humble	4,706
Hull	21,000
High Island	90
Jennings (La.)	1,000
Lockport (La.)	3,460
Markham	150
Nash	500
Orange	7,310
Orchard	80
Pierce Junction	4,650
Piedras Pintas	190
Spindletop	82,000
Saratoga	1,300
Sour Lake	6,900
South Liberty	4,225
Vinton (La.)	6,375
Welsh-Anse La Bute (La.)	70
West Columbia	8,490
Miscellaneous	250
Total	169,846

Southwest Fields

The estimated daily average gross production of the Southwest fields for the same period is placed at 43,250 bbls., an increase of 360 bbls. over last week's estimate.

The estimate for each field is as follows:

Field—	Dy. Ave.
Luling	20,400
*Mirando	16,300
Somerset	2,030
Calliham	55
Rockdale-Minerva	945
Lockhart (Lytton Springs)	3,520
Total	43,250

*Includes Webb, Jim Hogg, Zapata Counties and part of Duval County (Bruni, Cole-Bruni) districts.

	Bbls.
Grand total for week	213,096
Grand total last week	221,700
Net decrease	8,604

The following table showing operations for the week is a concise report, with less wells completed and less new production developed during the week:

District—	Comp.	Prod.	Dry	SW.	Big.
Batson	2	0	1	1	0
Big Creek	1	100	0	0	0
Barber Hill	1	600	0	0	0
Goose Creek	1	0	1	0	1
Humble	1	0	1	0	0
Hull	1	625	0	0	0
Lockport	0	0	0	0	1
Orange	0	0	0	0	3
Pierce Jct.	1	2,200	0	0	2
Spindletop	6	5,350	1	1	0
Sour Lake	1	0	1	1	4
South Liberty	1	0	1	0	0
Vinton	1	10	0	0	0
Miscellaneous	1	0	1	0	0
Total	18	8,885	7	3	11
Last week	33	11,065	11	6	6

Wells Completed and Drilling

The outstanding feature of the week in the Coastal region is the drilling into cap rock by the Union Sulphur Co. in its test on the Kyle land near the Liberty-Chambers County line, at 850 feet. It indicates the possibility of a new saline dome and another oil pool. The location is near Lake Charlotte, 6 miles south of Moss Bluff on the Liberty County side of the line. That section has been explored geophysically and the results seemingly justified leasing and drilling tests. The Osage Oil Co. is now drilling No. 1 State land, Lake Charlotte, below 4,245 feet, and the Sun Oil Co. has a test below 2,245 feet on the Chambers County side of the line. The Texas Company, Gulf Production Co., Pure Oil Co., Roxana Petroleum Corp., Humble Oil & Refining Co. and the Sun Oil Co. are represented among the lease holders in that section, holding from 1,000 to 2,500 acres each.

The Sun and Humble companies abandoned No. 1 in the Johnson Bayou region of Cameron Parish, Louisiana, at 5,287 feet. It was a joint test on a 30,000-acre lease and is the deepest test to date in that part of the parish, which borders Lake Sabine, across from Port Arthur, Tex. The abandoned test is on the east side of the big block of acreage, and it is probable that another will be started on the west side. Formation tests showed gas.

In the southeastern part of the same parish, the Pure Oil Co.'s No. 3 at Sweet Lake is heading 160 bbls. at 5,897 feet, the flow having increased from 113 bbls. It is an important wildcat well, which was completed one month ago. It is the deepest well in the Coastal region. The company is sidetracking No. 2 Sweet Lake at 5,130 feet. The original hole was drilled to 5,145 feet and lost. The sidetracking job started at 4,500 feet. A sand at 5,145 feet will be tested next week. E. F. Simms is rigging No. 1 on the shore of Calcasieu Lake in Calcasieu Parish for a deep test.

Well at Pierce Junction

Late in the week, the Rio Bravo Oil Co. completed No. 1-B Settegast on the northwest flank of the Pierce Junction Dome, at 3,565 feet, flowing 2,200 bbls. initial. The gravity is 25.3. Screen was set in 30 feet of sand. It widens the productive area 400 feet east and 600 feet south, being closer to the dome than the other producers there on that north-northwest flank. The Humphrey Corp.'s No. 1 Leggett there is bailing at 3,600 feet. Eunice & Carpenter's No. 1 Bullock-Nash is swabbing at 3,600 feet. The Gulf Production Co.'s No. 1 Jones will make a pumper at 3,700 feet.

The Rio Bravo Oil Co.'s No. 6 Settegast is drilling around 1,765 feet and No. 1 Bender at 3,535 feet. The Gulf Production Co.'s No. 2 R. Jones is rigging and No. 3 is drilling around 1,076 feet. Casing was set and cemented in No. 1 W. H. Jones at 3,650 feet. A derrick is up for No. 2. No. 19 Taylor in the east side is drilling below 4,400 feet. The Marland Oil Co.'s No. 2 Prudential is drilling at 1,112 feet. No 3 is rigging to start drilling with a derrick standing for No. 4. M. Kourey's No. 1 Jones is drilling around 655 feet. Derricks are up for the Humphrey Corp.'s No. 2 Leggett and Eunice & Carpenter's No. 2 Bullock-Nash. The Texas Exploration Co.'s No. 10 Dooley on the east side is pulling liner to deepen from 3,825 feet, after bailing saltwater.

In the Goose Creek Pool, the Gulf Production Co.'s No. 6 Hirsch in the bay was abandoned at 5,700 feet. The M. & B. Oil Co.'s No. 5 Scorrgea, northwest of production, is bailing at 2,430 feet.

The Gulf Production Co.'s No. 6 Rosenthal is drilling below 3,355 feet and a derrick is standing for No. 13 Chapman-Bryan. The Humble Oil & Refining Co.'s No. 31 Smith is working over at 3,100 feet. No. 68 is fishing at 4,810 feet and a location has been made for No. 70. No. 9 Galliard peninsula is drilling around 3,345 feet. No. 17 is at 2,590 feet and No. 32 around 3,018 feet. The Gulf Coast Oil Co.'s No. 35 Galliard is working over. Keen & Woolf's No. 9 Schilling is drilling around 2,325 feet.

The Gulf Production Co. abandoned No. 1 Foster Lumber on the north side of the San Jacinto River at Humble at 4,350 feet. The Atlantic Oil Producing Co.'s No. 1 Koehler on the south side of the river is drilling around 4,310 feet. The Sun Oil Co.'s No. 35 River is drilling around 2,824 feet. The Texas Company has the greatest production in that pool, averaging 1,900 bbls. per day, and the Galena-Signal Oil Co. has an average of 775 bbls. per day on the Stevenson in the deep sand section.

Hardin County Pools

In the light gravity, deep sand section on the southwest side of the Sour Lake Pool, the Yount Lee Oil Co.'s No. 5 Gilbert bailed dry at 4,200 feet. The Gulf Production Co.'s No. 1 McLean is a salt water hole at 3,945 feet. No. 1 Thompson is bailing at 3,100 feet. The Orange Petroleum Co.'s No. 2 Merchant is bailing at 4,155 feet. The Humphrey Corp. is bailing two wells, No. 5-B Bashara at 4,007 feet and No. 1 Gordon at 3,500 feet.

The Yount Lee Oil Co. is deepening No. 5 Gilbert. Its No. 3 Lynn is drilling around 5,000 feet. The Humphrey Corp.'s No. 1-C Bashara is at 3,900 feet. No. 1 Geiscke is below 3,215 feet. The Gulf Production Co.'s No. 2 McLean is drilling at 3,245 feet. No. 4 Cora Jackson is below 4,050 feet. No. 1 Ebberts is drilling at 1,080 feet. No. 2 is rigging to start drilling and No. 3 is a location. The Sun Oil Co.'s No. 1 Carpenter is rigging. The Hull Oil Co.'s No. 1 Hautier is below 3,765 feet. The Texas Company's No. 304 fee is fishing at 3,287 feet. The Lake View Oil Co.'s No. 52 Hardin is drilling below 765 feet. The Lake Graham Oil Co.'s No. 19 Bashara is rigging.

In the Batson Pool, the Sterling Oil Co.'s No. 5 Hooks is dry at 1,400 feet. The Gulf Production Co.'s No. 64 Choate got salt water at 1,110 feet.

The Gulf Production Co.'s No. 1 Cruse on the southwest side is drilling around 3,210 feet. The Capitol-Kirby Oil Co.'s No. 4 Hodges on the north side is rigging to drill deeper. The East Batson Oil Co.'s No. 14 State land is drilling below 1,200 feet. The Acorn Oil Co.'s No. 62 Paraffine is below 655 feet. The Ada Belle Oil Co.'s No. 111 Texas is shut down at 1,052 feet. The Paraffine Oil Co. set and cemented 6⅝-inch casing in No. 68 Fee at 1,132 feet. Its No. 33 Heywood is idle.

The Cotton Oil Co.'s No. 1 Deutzer in the Saratoga Pool is bailing at 808 feet The Rio Bravo Oil Co.'s No. 46 Jordit is idle.

Liberty County Pools

The Hull Pool records but one completion during the week. It is the Republic Production-Houston Oil Co.'s joint No. 140 Dolbear, worked over and heading 650 bbls. at 2,375 feet.

The same interests are rigging No. 123 Dolbear to drill it deeper. No. 141 is drilling around 2,435 feet, No. 142 is at 2,190 feet and No. 41 is working over at 2,665 feet. The Gulf Production Co.'s No. 75 Phoenix is at 2,109 feet. No. 76 is below 3,200 feet, No. 11 around 2,300

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SPECIAL MACHINERY CONSTRUCTED FOR TEST TO DRILL 10,000 FEET

By P. L. McGreal

BEAUMONT, Tex., Nov. 15.—If present plans mature the Spindletop Pool will see the drilling of the deepest test in the history of the Gulf Coast if not the entire country. The Yount Lee Oil Co., which discovered the deep sands there, announces it is preparing to drill No 15 McFaddin to 10,000 feet unless something is developed between 5,000 feet and the depth designated.

Three weeks ago the same company developed a producer below 5,000 feet. was the company's No. 9 fee, coming in with initial flow of 10,000 bbls. at 5,002 feet. The previous deepest producer was the Gulf Production Co.'s well on the Weed at 4,244 feet. Officials of the Yount Lee Oil Co. believe they will find another sand between 5,000 and 7,000 feet.

The Boykin Machine & Supply Co. has completed an extra heavy rotary rig to be used in drilling the test. The draw works are the heaviest and largest in the history of rotary drilling. Special twin engines and boilers have been built. The cable spool is 50 inches in diameter and the brake flange 42 inches in diameter. The dimensions of ordinary equipment are: Cable spool, 24 inches, and brake flange, 16 inches. The draw works are set on a frame of 10-inch steel "H" beams, steel being necessary to carry the extra stress instead of wood, which is generally used. The rotary is 23-inch with a new "make and break feature" which is expected to be a timesaver in adding drill pipe. The crown block and traveling block are the largest ever constructed for rotary drilling. Interchangeable bearing boxes form part of the special equipment, and the brake flanges combine an air-cooling patent by the Boykin company which is calculated to provide better service than water-cooled devices.

It is planned to set surface casing around 1,500 feet and not "look back" until the hole is around 4,000 feet. Below that depth the formations will be carefully cored. The location for the test is just west of the center of the present activity. It is 250 feet southeast from No. 8 fee, which was junked and abandoned this week at 4,920 feet when the hole caved.

Fire Loss $100,000

The Rio Bravo Oil Co.'s No. 53 T. & N. O. Railway, which ignited last week while bailing, causing a fire that resulted in a loss of $100,000, has been completed and is flowing 2,000 bbls. Nos. 3, 4 and 5, old holes, over which the derrick were destroyed by the flames, are being worked over.

The Gulf Production Co.'s No. 9 Oakwood was completed around 2,800 feet and came in flowing 3,000 bbls. initial. Its No. 5-A Weed bailed salt water at 3,450 feet. The Deep sand Oil Co.'s No. 3 Rish is being rigged to go on the beam at 3,400 feet. Gulf company's No. 6 Roche will make a pumper at 3,140 feet.

The Gulf Production Co.'s No. 8-A Weed is drilling around 4,600 feet and No. 10 at 3,035 feet. No. 5 Mann is at 3,115 feet and No. 6 at 3,125 feet. No. 3 Jack-Duff is below 4,997 feet and No. 4 at 4,919 feet. No. 7 Oakwood is drilling at 3,715 feet. No. 7 Roche is drilling at 3,765 feet. No. 4 Roche will be drilled deeper, as will No. 1 Jack-Duff.

The Rio Bravo Oil Co.'s No. 100 T. & N. O. is rigging, located north of production and southeast of the New Beaumont Oil Co.'s No. 1 Garrick, now drilling around 3,235 feet. Rio Bravo Oil Co.'s

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New Pool on East Side of Sunburst

Stray Sand Well Estimated Good for 50 Bbls. and Drilling Being Continued. Lost Soldier Gasser Burning

By F. B. Taylor
Staff Correspondent, Rocky Mountain Area

CASPER, Wyo., Nov. 13.—In the Sunburst Field what appears to be a new oil pool has been struck on the east side in Section 22-35-1 by the Kalispell Oil Co. This test is farther east than any producing wells drilled. The well found the upper sands somewhat lower than expected and early predictions gave up the well as a producer. However, at 1,430 feet a stray sand was opened and the well is estimated good for 50 bbls. from this stray. The drilling is being continued for a test of the Ellis sand which is expected about 1,600 feet.

At the same time, over on the west side of the field near the town of Kevin, the Royal Canadian Oil Co. drilled in a producer that woke up the operators. This well is located on Section 27-35-3 and is supposed to be in dry hole territory, but it started off at 100 bbls. daily.

The deep test of the Pondera Valley Oil Co. that found gas in the Devonian has drilled out the bridge and recovered the lost string of tools and is now drilling deeper. The hole has passed below 3,000 feet.

On Section 22-35-2, the Hill Syndicate on the Lorensen tract drilled in a good producer in the Ellis sand at 1,475 feet that will make 100 bbls.

The Berger well that found some gas west of the Sunburst Field in Glacier County has cleared the hole and is drilling again. An effort is being made to pipe the gas flow to Cut Bank for the use of that town and the effort seems to be successful so far in obtaining the necessary financial aid. The distance is about 10 miles.

Lost Soldier Gasser Burning

The big gasser known as Wertz No. 5 in the Lost Soldier Field and the property of the Producers & Refiners Corp. caught fire Wednesday and is still burning. Men and equipment are going into the location to fight the flames and an actual start against the fire will be made today. Boilers for steaming the fire were dragged across the sagebrush by tractors and special crews were sent from the Producers & Refiners refinery at Parco.

This well is a recent completion and last Tuesday found what is thought to be a stray sand above the Dakota, at 3,700 feet, with a strong flow of gas. The flow was thought to be about 20,000,000 feet, and it was mudded off and an attempt made to drill the well down. Another sand was found that added to the first flow and the well was estimated as making 40,000,000 feet and a pressure of 1,400 pounds when it caught fire. The cause of the fire is not clear; it is concluded that it was probably set off by a stone being blown from the hole and striking the derrick or some metal equipment with force enough to cause a spark.

This well was drilled on the Wertz Dome to help the supply of natural gas for the refineries at Casper, 100 miles to the north. The other wells at Wertz are now supplying gas to Casper through the line from the Lost Soldier.

Spraying Oil

The W. A. Myers gas well on the Hiawatha Dome, which structure lies across the Wyoming and Colorado line, is spraying some oil with the gas flow. This well has been variously reported as being in both Colorado and Wyoming, but is located on Section 22-12-100 in Colorado. The leases extend into Wyoming, and a location was made in Wyoming that was later changed into Colorado, which accounts for the mixup as to which state the well is in. The well is estimated at 60,000,000 feet and there is some talk of trying to put this gas into Salt Lake City. The Ohio Oil Co. has a survey from the Baxter Basin Field in Sweetwater County, Wyoming, to Salt Lake City for a gas line that was proposed to take the Baxter Basin gas, and it would be a rather small matter to swing this survey to take in the Hiawatha Dome wells.

To Test New Well

The Union Oil Co. of California is now preparing to test the new well in the Sunshine Dome in southern Park County. This well is located on Section 9-46-101 and was reported last week as a black oil producer in the Embar sand. The Union Oil Co. is now placing two 1,000-bbl. tanks at the well and also tubing it and will start pumping next week for a production test. The hole has filled up 800 feet with oil. A new location is expected to be made shortly and in case the present well is to be shut in at its present depth, the next well will drill through the Tensleep and go on to the Amsden and Madison sands for a complete test.

The wildcat of the Domino Oil Co. drilling south of Riverton, in Fremont County, Wyoming, near the Sand Draw Gas Feld, struck the Dakota sand at 800 feet and found the sand water bearing. This well is located on a structure that brings the producing horizons closer to the surface than is usual, and the Lakota sand is now being drilled for and expected about 1,000 feet deep.

Northwest of Casper about 35 miles on the Wilson Dome, Section 32-38-83, the Marland Oil Co. has abandoned the wildcat test drilling there and is now plugging. This well was drilled to the Tensleep sand and found a small showing of black oil and a flood of water. Hole was plugged at 3,640 feet.

Colorado Test

In Colorado the approach of winter has quieted down much of the wildcatting going on there, but the Timpas Dome in Otero County in the southwestern part of the State is attracting attention. This test is being drilled by Paul S. Ache and others and the work is being looked after by Will Radigan. The equipment is capable of going 5,000 feet and the surrounding country looks good as regards the geology.

This well is located on Section 29-26-57 and the hole is about 250 feet deep. The company has 1,640 acres under lease and the Pennsylvanian formation where petroleum may be found should come in at about 3,000 feet.

Red Mesa, about 20 miles southwest of Durango, is also attracting much attention and the Ohio Oil Co. is preparing to get busy there this fall.

Utah Operations

The Cane Creek well of the Utah Southern Oil Co. and the Midwest Refining Co. is trying to clear the bridge when the well found production at 4,976 feet. This production consisted of about 10,000,000 feet of gas and some oil that is practically the same grade as the former showing found at 2,000 feet. The 4½-inch casing is set at 3,650 feet and there is about 1,326 feet of open hole below the casing.

On the John Shaffer Dome about 5 miles south of Cane Creek, the same firms have cemented at 2,476 feet and will be drilling again in a day or so. News of a strike can be expected from this well at any time. The other wells are sending in routine reports.

FIELD RUNS FOR MONTH OF OCTOBER

Salt Creek	1,407,830
Teapot	27,760
Big Muddy	101,310
Grass Creek	96,190
Elk Basin	24,580
Greybull	620
Notches	1,270
Rock River	87,640
Rex Lake	7,700
Lance Creek	31,740
LaBarge	5,080
Poison Spider	23,520
Osage	10,390
Hamilton Dome	10,630
Lander	12,090
Byron	2,110
Pilot Butte	1,530
Lost Soldier	160,910
Ferris	2,480
Simpson Ridge	3,810
Cat Creek	81,800
Sunburst	565,760
Lake Basin	7,270
Florence	14,825
Moffat	92,770
Fort Collins	105,055
Boulder	825
Rangeley	3,700
Tow Creek	19,395
Rattlesnake	38,575
Hogback	23,360
Artesia	93,000
Table Mesa	3,870
Miscellaneous	2,325
Total	3,071,720

RUNS FROM THE FIELDS

Teapot	1,030
Big Muddy	3,140
Grass Creek	3,050
Elk Basin	780
Greybull	20

(Continued on Page 145)

GOOD SHOWING IN SASKATCHEWAN FOUND IN DEEPER SAND AT 2,283 FEET

By Victor Lauriston
Staff Correspondent, Canadian Fields

CHATHAM, Ont., Nov. 13. — In the province of Saskatchewan, Unity Valley Oil Co.'s No. 1, southeast quarter of Section 23-41-24w3, near Vera station, has encountered a good showing of oil in a deeper sand at 2,283 feet. The well is shut down waiting for casing, and when this has been run it will be drilled into the sand.

Unity Valley No. 1 got a first show of oil, estimated 25 bbls. a day, in a shallow sand at 1,200 feet. This was cased off and the test carried deeper, encountering a large gas flow, estimated at 10,000,000 feet a day, around the 1,700-foot horizon. The gas was shut off with the 8¼-inch casing, and a 6¾-inch hole carried down. Below 1,770 feet the rotary drill has been working in a very hard formation in the lime. The lower oil show was found in a black shale impregnated with lime, and its commercial value cannot be determined pending a capacity test. Unity Valley No. 1 is 18 miles from the Imperial Oil, Ltd.'s Muddy Lake well, drilled some years ago, and the first lime was encountered at 2,118 feet in the Muddy Lake well, compared with 1,770 feet in Unity Valley No. 1, indicating a considerable rise in the structure. The Muddy Lake test was abandoned when the lime was reached.

Near Simpson, Sask., the Simpson Oil Co., Section 9-29-25w2, is drilling in sandstone at about 320 feet. The well went through 40 feet of quicksand, which had to be bailed out and the casing lowered at the same time. A small gas flow was encountered. Near Riverhurst, Sask. Riverhurst Oil & Gas Co., LSD 4, Section 33-22-7w3, is reported drilling at 510 feet with a fair gas flow, and traces of oil. The 10-inch casing has been set. A standard outfit is being used. The test was started following the discovery of natural gas in a well drilled for water in LSD 1, Section 32-22-7w3. The Riverhurst Oil & Gas Co. has applied for a franchise to supply natural gas to Regina, 120 miles distant.

Turner Valley Field

In the Turner Valley Field, southwest of Calgary, Stockman Oils, Ltd., Section 27-20-3w5, has set the 12½-inch casing at 2,000 feet and resumed drilling. The gas flow of 2,450,000 feet a day is undiminished, and a bradenhead has been rigged up to control the gas which is being used to supply boilers and camp. A slight oil showing was encountered just before the casing was set.

Great West Oil Co., SE Section 7-20-2w5, is caving badly at 5,160 feet. Casing has been run down to 5,107 feet.

Illinois-Alberta Oil & Refining Co., LSD 14, Section 12-20-3w5, is removing the diamond drill pipe preparatory to attempting to clear the ice at the bottom of the 3,811-foot hole. At last reports 2,930 feet of drill pipe had been removed.

Home Oil Co. No. 2, LSD 14, Section 20-19-2w5, has drilled through the first pay sand, encountered at 1,992 feet. The 12½-inch casing has been run to the top of the pay, and drilling will be continued to the lower pay, around 2,050 feet, when a capacity test of both sands will be made. It is planned to finish this well as a shallow producer in the Dakotas. Home No. 1, LSD 10, Section 20-19-2w5, which has been carried down as a deep test, is drilling in the bottom half of the Kootenay formation at 2,825 feet, after setting 10½-inch casing at that depth.

Dalhousie Oil Co. has ordered a powerful diamond drill outfit to be used in completing Dalhousie No. 1, LSD 4, Section 18-20-2w5. This test is now just above the Madison limestone at 3,593 feet. Dalhousie No. 1 was the old Southern Alberta No. 1 flowing well, the first commercial oil producer in the Turner Valley Field. It is about 400 yards north of Royalite No. 5 naphtha gusher. When it was taken over last winter by the Dalhousie Oil Co., a Royalite subsidiary, it was decided to deepen the hole to the producing sand in the Madison. The drillers had to get past a lost bit in the hole,

(Continued on Page 91)

Rodeo and Wild Game Dinner Will Feature San Angelo Meeting

SAN ANGELO, Tex., Nov. 15.—The second annual convention of the West Texas Petroleum Association will be held in San Angelo, January 20 and 21, 1927.

The committee of arrangements in its desire to attract eastern oil men to the Marathon Fold Field is arranging a program of amusement meant to be of special interest to men in that section of the country. A rodeo will be a part of the program and the menu for the banquet will consist of such items as venison, wild turkey and quail, according to Ballinger Bruan, secretary of the Board of City Development.

Last year's meeting was a great success in every way. An interesting program was given and the amusement features made a pleasing impression on the visitors. The association plans to have a larger and a better convention in January, Mr. Bruan says.

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CINCINNATI, OHIO, U. S. A.

Huntington Extension Nearing Peak

Believed Approaching Limit of Development Work. Preparation for Deeper Drilling Being Made

By L. P. Stockman
Staff Correspondent, California Fields

LOS ANGELES, Calif., Nov. 13.—The southwest extension of the Huntington Beach Field is nearing the peak so far as development work is concerned and, judging by the present status of drilling projects in the town lot section, the high production point should be reached somewhere around December 15. The most interesting development at present is without doubt the exploration work being done in the extension by several operators who are attempting to determine the thickness of the oil sand without jeopardizing their various projects.

Heretofore, it has been almost universally customary to finish around the 4,000-foot level but during the past few weeks operators in the extension have shown a tendency to engage in deeper drilling. This is due to the fact that exploration work has indicated that the lower zone can be definitely segregated into an upper and lower part. Only one well, the Wilshire's No. 2 Huntington, which is flowing 2,400 bbls. a day, has been completed in the lower part of the deep zone, the balance having been finished in the upper portion. There are several drilling wells in the town lot section, however, which are scheduled for completion in the lower part of the deep sand and since some have already passed the 4,300-foot level without encountering any evidences of bottom water it is almost certain they will come into production within a few weeks with excellent prospects of registering a large initial output.

Attention was directed to the advisability of engaging in deeper drilling by the writer several weeks ago, at which time wells were being completed anywhere from 3,800 to 4,000 feet, and I am inclined to believe the depth of the productive formation in some parts of the field may extend down to around the 4,500-foot level. It will be necessary, of course, to core continuously after leaving 4,200 feet in order that exceptional care may be exercised in preventing the drilling into bottom water.

Comparatively few wells have been finished in the town lot section during the past 10 days but there are about 20 wells in this area which are expected to make a bid for production within two weeks and, barring the development of mechanical trouble, this figure may even be exceeded. The Standard, Petroleum Securities, Superior, Julian and George F. Getty, the largest individual operators in the field at present, have from 5 to 20 wells under way, the depths of which vary from 500 to 4,200 feet. The Huntington Beach Field has been quite a remarkable district as far as production is concerned and, while it did not attain the peaks reached by Santa Fe Springs and Long Beach, production in this field has been unusually stable.

Choicest Section of Field

It is to be regretted that the southwest extension has been doomed to town lot drilling, as this area is probably the choicest section of the entire field, not only from a crude oil production standpoint but also because of a very desirable output of natural gas, which has been averaging around 3 gallons of natural-gas gasoline to each 1,000 feet of gas treated. The average daily well production, approximately 800 bbls. at present, has been declining consistently for several weeks due to fewer completions, but it is expected to climb again if operators are successful in securing a deeper penetration into the producing formation, in which event new wells should register a larger initial daily production for several weeks. Particular attention is directed to this possibility because of the fact that the Petroleum Securities, Standard, Superior and Julian Petroleum will undoubtedly take advantage of this condition, and, since each of these operators is running from 5 to 15 strings of tools, their completions should have an appreciable effect on the total field production. In addition to finishing these present drillers in the lower part of the deep zone it is possible some of those wells producing from the upper part of the deep zone may be killed and carried on down. As a matter of fact it is nearly a foregone conclusion this will be done if deeper drilling proves as productive as recent developments indicate.

The Richfield Oil Co. headed the completion list this week with three new wells whose aggregate initial daily production totaled 3,065 bbls. and averaged 1,022 bbls. per well. No. 3 Huntington McKeon, the largest of this trio of new wells, came in flowing 1,530 bbls. of 24.6 gravity oil daily from 3,996 feet. No. 1 Ward, drilled 3,960 feet and finished with 6¼-inch oil string carrying 490 feet of 100-mesh screen, was good for 850 bbls., while No. 1 Buck, completed at 3,755 feet and finished with an 8¼-inch liner, registered an intial of 685 bbls. E. J. Miley's No. 5 Pacific Electric was somewhat of a disappointment when turned loose from 3,990 feet, as it only registered an initial output of 420 bbls., the oil testing 24.1 degrees and showing a cut of 3 per cent. It seems to be building up, however, and will probably do better than 500 bbls. after it has cleaned itself out.

Good Producers

The Superior carried off honors so far as initial daily production is concerned as it No. 2 Gillette came in doing 1,730 bbls. of clean 23.8 gravity oil. The output from this well, which was drilled to 4,161 feet and finished with an 8¼-inch oil string carrying 585 feet of combination 80 and 100 mesh screen, is flowing through a ¾-inch bean under a pressure of 400 pounds. No. 1 Bonsall of the Petroleum Securities along with eastern edge of the extension proved quite a surprise by starting off flowing 1,050 bbls. of clean 23.6 gravity oil daily from 3,858 feet. The California Petroleum chalked up two new producers in the town lot area by completing No. 1 Schwartz flowing 560 bbls. of 24. 8 gravity oil daily and No. 1 Tubach doing 810 bbls. of 24.2 gravity oil. The former was drilled to an even 4,000 feet and finished with an 8¼-inch oil string carrying 695 feet of perforated, while the latter was carried down to 3,952 feet and completed with an 8¼-inch including 535 feet of 100 mesh screen. This just about finishes the development work of the California Petroleum for the present, although the company has five other drillers, four of which have only recently been spudded in. Do not be surprised, however, if some of these 4,000-foot wells are killed and carried down another 200 feet.

Ventura

Two wells were put on production in the Ventura Avenue Field, both recompletions after being redrilled and deepened. The largest was the Associated's No. 17 Lloyd, which came in under perfect control flowing 4,590 bbls. of exceptionally clean 30.5 gravity oil and 5,000,000 feet of wet gas daily. This well was originally finished in September, 1925, at which time it came in flowing 724 bbls. daily from 5,201 feet. It was taken off production a month or so ago and carried down to 6,250 feet and the wisdom of the company's geological staff in drilling this additional 1,000 feet of hole is evidenced by the results attained. The Associated has several other wells nearing completion and would have finished another producer if a water shut off had been secured in No. 32 Lloyd, which started to flow from 6,157 feet. The well was killed, however, as the output was cutting 15 per cent water, indicating the first cement job was not effective.

The Bolsa Chica Oil Co., under the management of Irving Augur, recompleted No. 1 Hartman at 5,910 feet and it registered an initial production of 1,610 bbls., the oil testing 29.8 degrees and showing a cut of 2 per cent. In addition to the oil, the well is making 3,000,000 feet of gas, from which the company is getting 2,700 gallons of casinghead daily. Immediately upon the completion of No. 1 Hartman the crew was transferred over to No. 2, which had been drilled down to 3,675 feet while No. 1 was standing cemented. The company also started preparations to drill another well, No. 3, and material is being placed on the ground. One of the most interesting developments

TANKER SHIPMENTS FROM LOS ANGELES TO ATLANTIC AND GULF COAST PORTS

Commodity—	Total This week	Daily Average	Total Last week	Daily Average	This year To date	Same time Last year
Crude oil	266,157	38,022	166,414	23,773	10,069,866	12,287,183
Fuel and gas oil	123,945	17,706	75,240	10,763	9,183,760	545,901
Gasoline	253,188	36,170	261,790	37,399	6,238,036	7,158,242
Tops	.....	.....	.....	.....	227,566	648,779
Coastwise—						
Crude oil	272,419	38,917	427,647	61,092	19,673,460	28,892,182
Fuel and gas oil	383,379	54,768	275,431	39,347	9,707,574	9,844,422
Gasoline	325,055	46,436	110,380	15,769	6,661,002	4,503,220
Kerosene	.....	.....	6,044	863	216,296	268,066
Tops	.....	.....	.....	.....	645,823	237,588
Exports—						
Crude oil	148,656	21,237	21,271	3,039	4,825,495	2,266,045
Fuel and gas oil	322,361	46,052	345,966	49,424	16,223,075	12,845,985
Gasoline	.....	.....	146,634	20,948	4,645,855	3,351,457
Tops	67,630	9,661	.....	.....	235,211	170,407
Kerosene	75,090	10,727	96,478	13,783	2,434,429	2,257,502

TANKER SHIPMENTS FROM SAN FRANCISCO TO ATLANTIC, GULF COAST PORTS

Fuel and gas oil	.....	.....	168,212	24,030	1,727,996	218,414
Gasoline	.....	.....	.....	.....	758,222	1,111,108
Tops	.....	.....	.....	.....	229,775	794,918
Lubricants	57,860	8,266	.....	.....	393,088	317,558
Coastwise—						
Fuel and gas oil	278,861	39,837	48,611	6,944	4,090,170	3,768,760
Gasoline	85,884	12,269	76,383	10,912	3,833,378	2,127,741
Kerosene	7,115	1,016	.....	.....	305,820	151,212
Exports—						
Fuel and gas oil	.....	.....	139,934	19,991	3,141,561	2,507,414
Gasoline	.....	.....	.....	.....	1,379,490	537,770
Kerosene	156,712	22,387	.....	.....	1,884,186	1,073,114
Lubricants	.....	.....	.....	.....	8,759	243,429

MEXICO REPORTS LIGHT PRODUCERS, 4,310 BBLS., OUT OF 21 COMPLETIONS

By George Blardone
Staff Correspondent, Mexican Fields

TAMPICO, Mex., Nov. 12.—The roster of wells completed to date, from the last report, can be placed at 21, four of which are located in the south fields and 17 in the northern fields. The pay completions list as follows: South fields, 2; north fields, 6. The new production (potential flush) accruing is: South fields, 2,500 bbls.; northern fields, 1,810 bbls.

The pay completions in the northern fields follow: La Corona Petroleum Co.'s No. 132 Ojital (Panuco) is rated 1,000 bbls. at 1,605 feet. Cia. Pet. Francia Mexico, No. 6-A Lomas y Llanos, 60 bbls. at 2,505 feet. Transcontinental Petroleum Co.'s No. 30 Las Delicas (Panuco) 300 bbls. at 1,305 feet, a very shallow well; and, the same company's No. 217, Lot 4 Cacalilao, 100 bbls. at 1,800 feet, the production through 3-inch tubing. Cia. Pet. Franco Espanola, (Marland), No. 66 Limon at 2,300 feet, say 300 bbls., and its No. 68, say 50 bbls. at 2,750 feet.

In the south fields, Huasteca Petroleum Co.'s No. 76 Tierra Blanca, at a sub-sea level of 1,870 feet is rated good for 2,000 bbls. Mexican Eagle Oil Co.'s No. 52, Lot 137 Chinampa is rated good for 500 bbls. at a sub-sea level of 1,654 feet.

The Failures

The failures in the northern fields follow: La Corona Petroleum Co.'s No. 129 Ojital drilled into salt water at 1,915 feet; its No. 21 Topila is a dry hole at 2,770 feet. Mexican Gulf Oil Co.'s No. 28 Lopez is a duster at 2,050 feet. Mexican Sinclair Petroleum Co.'s No. 14 Lot 1 Camolote is dry at 2,048 feet; and its No. 134 Lot 3 Cacalilao is the same at 1,571 feet. Territorial Oil Co.'s No. 20 Salvasuchi is a dry hole at 1,900 feet. Cia. Franco Espanola, (Marland), No. 67 Limon is a dry hole at 2,750 feet. Mexican Petroleum Co.'s No. 12 Ebano, at 2,660 feet; Nos. 110 and 120 Conteca at 2,250 and 2,185 feet respectively, and No. H-8 Caracol at 2,605 feet, are all dry holes.

In the southern fields, International Petroleum Co.'s No. 54 Toteco is dry at 2,301 feet; and Mexican Eagle Oil Co.'s No. 30 Alazan is also a duster at a sub-sea level of 1,797 feet.

Panuco-Cacalilao

In the Panuco-Cacalilao sectors of the northern fields drilling operations as the week ended are best described as follows: La Corona Petroleum Co., in Cacalilao, No. 188, Lot 1, has cemented 10-inch in gray shale at 600 feet; No. 189, same, is in gray lime at 1,650 feet; No. 190 is in gray shale at 720 feet; and in the Panuco sector, No. 133 Salvasuchi is in gray lime at 1,250 feet; No. 134 Ojital is rigging, and No. 135 Las Piedras is moving in. Cia. Pet. Francia Mexico, Panuco, No. 14 Piedras is in gray lime at 1,710 feet. In Cacalilao, International Petroleum Co.'s operations in Lot 5 follow: No. 265 is shut down for the time

(Continued on Page 126)

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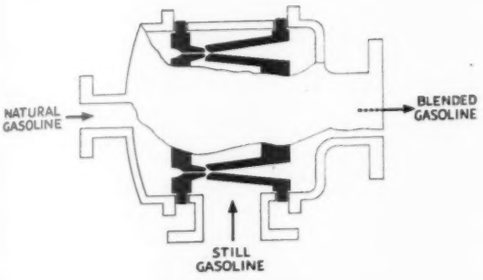

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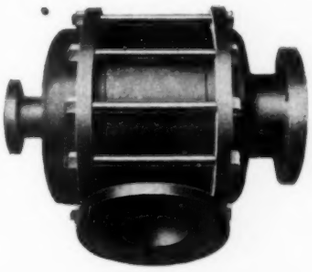

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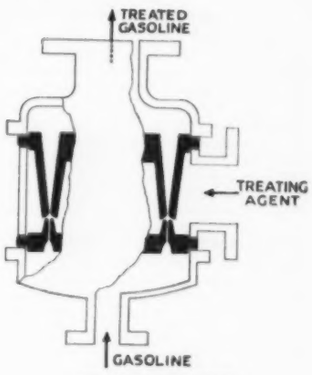

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It eliminates, for example, expensive lead-lined agitators, expensive foundations, large steam and compressor plants, fire and explosion risks, evaporation loss, buildings (as installation is in the open), circulation and extra pumps.

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was the failure of operators to submit bids of any kind for a lease on the property of the State School for Girls of Ventura, as it was believed some fairly large cash bonuses might be offered. The board appointed by the governor to receive bids met in Los Angeles and asked for oral bids but not a single proposal of any kind was submitted. It is possible the board will ask for sealed bids soon, although no announcement along this line was made. The General Petroleum and Shell made some fast footage in several of their drilling projects during the past week and it is possible each will finish a new well within 10 days. The latter's No. 13 Gosnell in particular is looking exceptionally promising at 6,305 feet and the oil string is scheduled to be run in tomorrow or next day.

Activity in Temescal

Considerable activity is getting under way in and around the Temescal district and it is believed several additional wells will be spudded in shortly. This particular area looks unusually promising for shallow production with the wells expected to average around 200 or 300 bbls. Recent developments indicate, however, that larger production may be developed as it will be recalled one well of the Temescal Petroleum made better than 1,000 bbls. a day for a short time. Water trouble developed, however, and when the well was plugged back and put on the beam it was good for only 350 bbls. The California Western Oil Co. is the latest concern to enter this vicinity and it is believed material will be on ground for the first rig within two weeks. The Bell View spudded in its first well in Section 1-4-18 last week and, while the Bolsa Chica has tentatively mapped a location on its adjoining 600 acres, the company has not yet definitely decided when spud will be made. The Leonard Oil Co. in Section 3 and the Oil Exploration Co. in Section 16 are also activiely drilling. The Temescal Petroleum has a rig up for No. 4 on the Landers property offsetting the acreage of the Bell View.

Seal Beach

The Marland finished two new producers in the Seal Beach Field early in the week but both were killed as soon as it became evident a satisfactory water shut off had been effected. No. 3 Bixby was the first and was rated at 1,600 bbls. from 4,402 feet, the oil testing 23.9 degrees and showing a cut of 2 per cent. No. 4 Bixby started flowing the following day from 4,435 feet and made a much better showing as the initial output was 2,600 bbls. Both have only tapped the oil sand and it is the present intention to drill ahead and finish each in the usual manner. In addition to the satisfactory showings which these wells made, the company also succeeded in picking up the pay in No. 1 Selover in the southern part of the field at 4,735 feet.

The Standard also encountered the oil sand and its No. 2 San Gabriel is standing cemented. It is believed all three of these potential producers will be on production within 10 days and the field production will reflect their completion. The Associated has just passed the 3,150-foot level in No. 1 Bryant in the eastern part of the field and, while this well may not secure large production, it should result in a commercial producer.

Long Beach

The United Oil Co. and the Marine Oil Corp. have started preparations to duplicate the success which the Pan American had in completing its No. 2 Chaney in the older section of the Long Beach Field a few weeks ago. This well which offsets holdings of the United and Marine, is holding up remarkably well, the output during the past 24 hours being 1,250 bbls. The United has selected No. 8 Haas, which has been delayed because of mechanical trouble, and the company will carry this hole down to approximately the same depth at which No. 2 Chaney was finished, 5,389 feet. The former is two locations removed from the latter and is therefore in territory proven up for large production. The Marine, which was merged with the Julian Petroleum a month or two ago, has undertaken to redrill and deepen No. 6, a small producer from around 3,750 feet and this well should also be successful in developing substantial production as it is in close proximity to the Pan American's No. 2 Chaney.

Several gas wells are being drilled at various points in the Long Beach Field and, while one or two have been abandoned recently because of water trouble, this has not had a tendency to discourage work along this line as the drilling and production costs are comparatively small. The Ahlberg Gasoline Co. recently finished No. 1 Jennings as a gasser and it is making approximately 750,000 feet daily from 3,130 feet. The National Gas Syndicate's No. 2 in the northwest extension is making a litter better than 1,000,000 feet from 3,135 feet and, although the well is also producing 1,250 bbls. of water this hole has not yet become menacing. The Reliance Home Investment Co.'s No. 3 is yielding 450,000 feet of gas from 3,170 feet accompanied by 250 bbls. of water. The Dabney Oil Syndicate has just finished its No. 26 in the northwest extension at 3,728 feet making 225 bbls. of 23.1 gravity oil daily.

The Naples Improvement Association is circulating an initiative petition throughout the city of Long Beach demanding municipal legislation to protect residential sections from being thrown open to the drill, the agitation starting as a result of the possibility of the Seal Beach district extending over into the Alamitos Heights area to the west. The petitioners are seeking to bar all oil operators from drilling in the Naples, Belmont Heights and Alamitos Bay districts for all time and it is the consensus of opinion the movement will gain momentum and probably receive an affirmative vote when placed before the electorate.

The purpose is to prevent drilling in residential sections, in Los Cerritos, or northwest extension of the Long Beach Field, being cited as the big argument in favor of this legislation. The result of unrestricted drilling in the northwest extension has been to antagonize the voters which is not surprising in view of the laxity on the part of numerous small operators who have allowed sump water and refuse to drain down the streets and accumulate at many points. Some of the larger operators in this section have attempted several times to alleviate this condition without success as many syndicates and individual operators are without adequate finances to remedy the situation.

Rosecrans

The Barnsdall has just closed a very successful week, during which period the company placed two wells on production at Rosecrans, both on the O'Dea property. No. 13, which made an original flow of 560 bbls. several weeks ago, was returned to production doing 600 bbls. of 39.7 gravity oil daily from 4,979 feet, the hole being finished with a 6¼-inch oil string carrying 130 feet of perforated. No. 14, a new well, is making a little less than 500 bbls. daily from 4,918 feet, the last 81 feet being open hole. The Big Five Oil Co. has a rig up for No. 3 Cole and, while an early spud was anticipated, drilling may be held up temporarily as the crew has been put to work on No. 1, which failed to stand up, and the hole is being deepened. E. L. Craigen is starting work on his 70-acre lease north of The Big Five Oil Co.'s Cole property and it is believed he has a fairly good chance of developing commercial production.

Property owners at Redondo Beach will decide on November 19 whether that area will be opened for drilling and, while a determined effort is being made to remove existing ordinances prohibiting drilling, it is hardly likely this will be accomplished. The Torrance Field extends over into the city of Redondo, which is quite a beach resort, but work in the latter area was stopped by the City Council, which action was ratified by the electorate in March, 1924, after two or three producers had already been drilled in that section. This part of the Torrance Field is productive of only small wells and even if existing ordinances prohibiting drilling are revoked this will not have any appreciable effect on production, as the oil is of a rather low grade and hardly warrants the cost of drilling with the prevailing low price of oil. The Chanslor-Canfield Midway Oil Co. has just finished No. 56 on the Del Amo lease, the oldest producing property in thhe Torrance Field, and secured a 295-bbl. pumper from 3,650 feet.

Montebello

Three new wells were chalked up in the Montebello Field during the past seven-day period but all were comparatively small. The Standard finished its No. 4 Howard & Smith, an edge well in the western part of the field, and while the initial output, 25 bbls. daily from 3,845 feet, was quite small, it was unusually clean, the cut being less than ½ per cent. The Superior also finished a west edge well when No. 1 Masser was put on the beam at 3,545 feet after being plugged back from 3,573 feet. The initial pumping, 75 bbls. daily, tests 22.1 degrees and shows a cut of 5 per cent. The St. Helens Petroleum completed No. 13 Monterey in this field at 3,582 feet and brought in a 225-bbl. pumper, the oil testing 22.3 degrees and showing a cut of 1 per cent.

The Union has staked a location for a third test on its Olinda lease in the Fullerton Field and, although the company recently abandoned two dusters on this property, it is not improbable the next hole will secure production. The property at least warrants further development and, although No. 1 Olinda did not show anything resembling oil, the log of No. 2 reveals several promising indications. As a matter of fact, the cores were so favorable the company made a production test before pulling out. The first well was abandoned as a duster at 5,309 feet, while No. 2 Olinda was given up as a dry hole at 5,926 feet. The Shell's No. 13 Orange in the Fullerton Field, while it had all

(Continued on Page 95)

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, Well, Location—	S-T-R	Depth	Status
Smith Pet. Co., No. 1 Johnson, Hawthorne	17- 3-14	5,400	gr. sd. drilling
Associated, No. 1 Cypress, Inglewood	34- 2-14	4,450	test showing
Dominguez Extension, No. 1 Compton, Dominguez	22- 3-13	3,140	gr. sd. drilling
Riner, H. E., No. 3 McDermott, San Bernardino	32- 2- 8	620	suspended
Milham Explth., Well No. 2, Del Rey	34- 2-15	6,100	fishing
Cardiff Oil Co. No. 1 Oceanside, San Diego	24-13- 4	1,200	hd. sd. drilling
Petroleum Sec., No. 1 Sesnon, San Fernando	14- 2-16	4,900	hd. sd. drilling
Standard, No. 1 University, San Fernando	15- 2-15	4,880	hd. sd. drilling
Standard, No. 1 Austin, Topango	11- 1-17	1,760	fishing
Union, No. 1 Saugus, Saugus	15- 4-16	4,760	bl. sh. drilling
Oceanside Oil Co., No. 1 Pacific, San Diego	23-11- 5	3,126	cleaning out
Sou. Calif. Drlg. Co., No. 1 Matteson, El Segundo	1- 3-15	2,660	sd. sh. drilling
Calif. Pet. Dev., No. 1 Spitz, Capistrano	2- 8- 8	2,860	sd. sh. drilling
Petroleum Sec., No. 1 DeBaker, Bandini	18- 2-12	2,980	hd. sh. drilling
Van Nuys, No. 1 Community, Van Nuys	16- 1-15	3,872	suspended
Julian, No. 1 Moser, Athens	12- 3-14	3,900	hd. sd. drilling
General Pet. No. 1 Lomita, Sunset Beach	19- 5-11	Rig	rigging up
Johnson, Geo. W., No. 1 Wickham, Los Ang. Co.	32- 5-17	130	sd. drilling
Rider, E. R. No. 1 El Segundo, Los Angeles Co.	12- 3-15	2,300	testing

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Taylor, W. W., No. 1 Clovis, Fresno County	5-13-22	1,670	sl. oil show
Associated, No. 2 Huron, Fresno County	20-19-17	2,060	fishing
Federal Explth., No. 1 Kinsella, Tulare Co.	15-22-24	4,100	br. sh. drilling
Bolsa Chica, Well No. 2, Kettleman Hills	30-23-19	2,360	recemented
General Pet. Well No. 1, Kettleman Hills	30-23-19	Mtl.	building rig
Marland, No. 1 Elliott, Kettleman Hills	12-22-17	5,679	fishing
South Coalinga, Well No. 1, Kettleman Hills	35-21-19	1,550	bl. sh. drilling
Shell, No. 1 Berlywood, Moorpark	32- 3-20	6,667	fishing
C. C. M. O., No. 1 Hobson, Ventura Co.	22- 3-24	5,855	sidetracking
Milham Explth., No. 1 Sexton, Ventura Co.	19- 3-22	6,345	hd. sd. drilling
Milham Explth., No. 1 Buttonwillow, Kern Co.	8-28-23	3,017	destroyed by gas
Standard, No. 1 Palmer, Santa Barbara Co.	13- 9-23	4,200	hd. sd. drilling
Standard, No. 1 Camarillo, Ventura Co.	29- 2-20	4,375	basalt drilling
Pan American, No. 1 White, Monterey Co.	28-23-12	2,837	hd. sd. drilling
Pyramid, No. 1 Trescony, Monterey Co.	26-21- 9	3,178	sd. drilling
Shell, No. 1 Murphy, Petaluma	29- 5- 6	3,210	hd. sd. drilling
Miley Explth., No. 2 Casitas, Ventura Co.	7- 3-25	623	fishing
Miley Explth., No. 1 Goleta, Santa Barbara Co.	3- 4-29	660	cemented
Rio Grande, No. 1 Canet, Ventura Co.	9- 3-23	3,500	br. sh. drilling
Woodward & Sheedy, No. 1 Famosa, Kern Co.	27-27-26	3,502	suspended
Henderson Pet., No. 2 Piru, Ventura Co.	35- 5-18	1,296	br. sh. drilling
Ozena, No. 1 Allensworth, Tulare Co.	26-24-24	800	hd. sh. drilling
Union, No. 1 Gill, Famosa	8-28-27	2,500	hd. sh. drilling
Parkford, E. A., No. 1 Strathern, Ventura Co.		1,090	hd. sd. drilling
Star Petroleum, No. 1 Canet, Ventura Co.	13- 3-23	350	sd. drilling
Associated, No. 2 Kerman, Fresno Co.	36-13-16	Rig	rigging up
Oil Exploration Co., No. 1 Janes, Ventura Co.		350	gr. sd. drilling
Walkin Pet. Well No. 1, San Luis Obispo Co.	33-27-10	2,465	suspended
Walkin Pet. Well No. 1, Tulare Co.	35 24 24	Rig	rigging up
Standard, No. 1 Montalvo, Ventura Co.		650	sd. drilling

COMPLETION OF SMALL PRODUCER REVIVES INTEREST WEST OF PECOS

By Special Correspondent

ARTESIA, N. Mex., Nov. 13.—The recent completion of a small producer on the Winans ranch south of this city by Rehn and associates has revived interest in the country west of the Pecos River. As a result a number of locations have been made, with several wells drilling. It was on the Brown farm west of the Pecos that oil was first discovered in southeastern New Mexico, in an artesian water well drilled 20 years ago. Since that time many tests have been put down, all showing oil and gas, the oil in the majority of the wells, however, being driven back by the great artesian water flows, picked up around 1,000 feet. The completion of the Rehn well which is making 10 bbls. from a depth of 1,660 feet, has proved that commercial production can be obtained from the shallow depth, providing the water flow is sealed off.

A location has been made for a second test north of the Rehn well in Township 17, Range 26, the hole to be drilled with rotary tools and financed by local interests.

Many geologists, who have carefully worked this country, are of the opinion that production will be brought in west of the Pecos, if drilled on any of the numerous structures which have been worked out. All of the producing sands, lime and shale encountered in the Artesia and Maljamar Fields have been traced to their outcropping in the Guadalupe Mountains to the west, the Delaware Mountain formation being exposed in one place to a thickness of 1,400 feet. The Marland Oil Co. has done much of the exploration work to the west of the river, its geologists having been stationed in this country for the past two years.

Deers Curtail Operations

Little drilling is expected to be done for the next 10 days in the Artesia and Maljamar Fields, although two Lea County wells are showing considerable oil and gas, as the majority of oil operators are taking advantage of the deer season, which opened November 10.

The Ohio Oil Co.'s No. 1 on the William Mitchell permit in Section 18-17-32, picked up additional gas at 3,400 feet, with another oil showing from 3,470 to 3,480 feet.

The Maljamar Oil & Gas Co.'s No. 1 on state acreage, in the SE of Section 16-17-32, offsetting the No. 1 Baish producer to the north, is checking closely and should be a completion within 15 days. Casing is being set in this hole at 2,922 feet.

Grace Mitchell's No. 1 in Section 5-17-32, is shut down at 2,280 feet, due to lack of fuel. North of the Skelly producer, the Prairie Oil & Gas Co. is spud-

(Continued on Page 129)

Cleaner and Faster Bailing With

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Clean-out Bailers

Baker Regular Clean-out Bailer. Note Regular type Shoe with bridge between points, right. Supreme in speed and clean work, it pays for itself in a few runs in the time saved alone.

EVERY Oil Well has its own peculiar and individual bailing problem. Realizing this, the Baker Clean-out Bailer is a highly specialized tool which is the result of close field study of varying conditions. That is why it is made with interchangeable shoes. The Baker is sure to overcome the toughest kind of bailing work.

Three Bailers in One

The Regular Baker Clean-out bailer with extra Chisel and Saw Tooth Shoe or Bit makes a compact kit of bailing efficiency. It is made in all standard tubing and casing sizes, up to 8¼". The Bailer top and bottom are easily transported from well to well with the extra shoes. By selecting the shoe or bit best suited for the formations encountered, a speedy, thorough job of cleaning out is done.

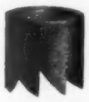
Baker Chisel Clean-out Bailer Shoe. The Regular Clean-out type Bailer is easily transformed into a Chisel Clean-out Bailer by unscrewing its shoe and replacing with Chisel Shoe.

Baker Regular Clean-out Bailer

For an all 'round good bailing job, the Regular type is hard to beat. The shoe or bit is made with curved and tapered points of unequalled length which cause the bailer to rotate when run with the jerk line. Valve opening is of maximum area and close to cutting points. This permits it to pick up sand, gravel or shale rapidly and thoroughly. Furnished also with a bridge between points to break up pure shale.

Baker Chisel Clean-out Bailer

By using a Chisel Shoe, hard formations can be broken up and the hole cleaned out. Found especially suitable for breaking up a hard bridge.



Baker Saw Tooth Clean-out Bailer Shoe. Fits Regular Clean-out Bailers of corresponding size.

Baker Saw Tooth Clean-out Bailer

The Saw Tooth Shoe has teeth shaped to draw in the cuttings and screws itself tighter on the Bailer body, thus eliminating any chance of losing it in the hole. This type of shoe works to advantage where the formation will not break up small enough to go through other types of shoes.

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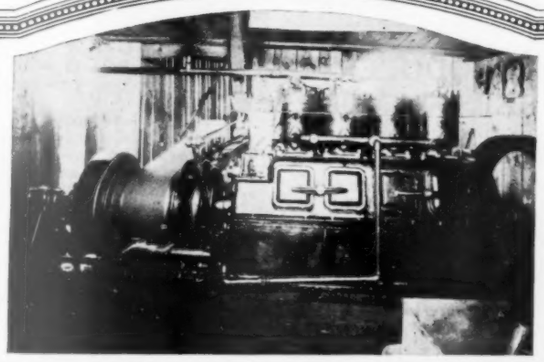

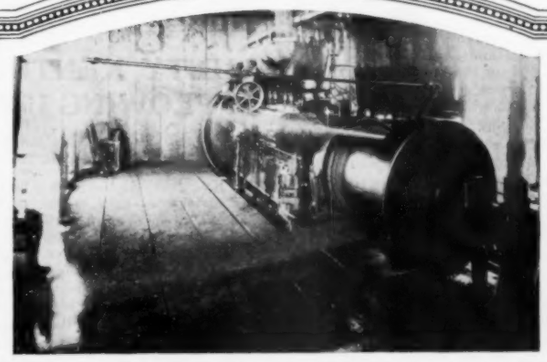

Clark Bros. Co. OLEAN N.Y.

ENGINES

Guernsey County Has 200 Bbl. Well

It Found Its Oil in the Niagara Limestone and Was at First Rumored 1,000-Bbl. Producer

By D. S. Wakenight
Staff Correspondent, Eastern Fields

PITTSBURGH, Pa., Nov. 13.—Nearly all of the good producers completed during the week are located in the deep sand territory in southeastern Ohio. Operations showed fewer completions but a higher average in production. As usual the shallow sand districts completed light wells and small gassers.

A reported gusher found by the Ohio Fuel Gas Co. on the Fulton farm in Guernsey County, in the Central Ohio Field, was found to average better than 200 bbls. The well found its oil in the Niagara limestone and had been reported by wire as good for around 1,000 bbls. initial. In the early nineties well-known operators that started securing leases in the old Lima Field were always looking for Niagara limestone, which crops out to the surface in many spots between Toledo and Gibsonburg. The small city of Genoa is practically built upon or near the top of the Niagara. The formation never proved productive anywhere in the eastern portion of the Lima Field, but in Casey and Martinsville Townships, in Illinois, is productive and found around a depth varying around 1,600 feet, while in the Cambridge Field of Guernsey County it lies at better than 3,200 feet, the wells being rather expensive.

In the deep sand territory in the northeast quarter of Section 19, Reading Township, Perry County, the Planet Oil Co. and others completed and shot in the Clinton sand No. 5 on the S. B. Dittoe farm. It produced 182 bbls. the first 24 hours. In the northwest quarter of section, Coal Township, same county the Chartiers Oil Co. completed and shot in the same formation No. 201 on the Hocking Valley Products Co.'s property. It produced 135 bbls. the first 24 hours.

In the Frazeyburg district, in the northwest quarter of Section 4, Jackson Township, Muskingum County, the Pure Oil Co.'s No. 5 on the Jacob Ashcraft farm is good for 175 bbls. a day. In Lot 7, Monroe Township, Holmes County, the Ohio Oil Co.'s No. 3 on the Olive Smitheiser farm produced 75 bbls. the first 24 hours after completed and shot in the Clinton sand.

In Section 14, Hanover Township, Licking County, the Hope Construction & Refining Co. has completed and shot in the Clinton sand No. 14 on the Jacob Vandenbark farm, good for 20 bbls. a day. They are now setting a gas engine preparatory to putting it to pumping.

Shallow Sand Wells

In the southwest quarter of Section 21, Jackson Township, Knox County, the Arkansas Fuel Oil Co. completed and shot in the Berea grit No. 19 on the L. V. Dugan farm. It is a 10-bbl. pumper. In Section 23, Waterloo Township, Athens County, the Sharon Oil & Gas Co. has a very light pumper in the same formation at a test on the John C. Hewitt farm.

In Knox Township, Section 7, Vinton County, the Gordon Oil Co.'s second test on the Wesley Walburn farm is a 2-bbl. pumper in the Berea grit. In Section 31, same township, Beeghly & Shaffer have a very light pumper at a second test on the William Dearth farm. In Section 1, Lodi Township, Athens County, Nezum and others have a duster in the Berea grit at a test on the L. M. Blackburn farm. In Section 16, Alexander Township, J. A. Ronshausen and others have a 6-bbl. pumper at No. 6 J. M. Wood.

In Lot 21, Hardy Township, Holmes County, the Empire Gas & Fuel Co.'s second test on the Lewis Donald farm is a duster in the Clinton sand.

In Section 5, Trimble Township, Athens County, the Glouster Oil & Gas Co. has completed and shot in the Berea grit a test on the William Allen farm. It is good for 10 bbls. a day and is located in advance of developments. In Section 2, Knox Township, Vinton County, the Cooperative Oil Co. has completed a second test on the William Beckley farm and is a light pumper in the Berea grit. In the same township, Watkins & Co. have a gasser at a test on the James Queen farm.

In Section 36, Enoch Township, Noble County, Way Wickens & Co. are drilling a test on the Clem Shafer farm. In Center Township, J. H. Yerain and others have a rig up on the R. E. Merry farm. In Newport Township, Washington County, Patterson, Riggs & Todd have a very light pumper in the first Cow Run sand at a test on the A. E. and M. Adkins farm. In the northeast quarter of Section 28, York Township, Morgan County, the Pure Oil Co. has completed No. 6 on the Wilbert Bush farm. It produced 15 bbls. the first 24 hours after shot in the Berea grit. In the southern part of Section 32, Chester Township, Meigs County, the same company has completed in the Berea grit a test on the Minnie Kautz farm. It is a fair gasser.

Three miles south of Chesterhill, Section 24, Berne Township, Athens County, F. M. Selby has a duster in the stray sand below the Berea grit at a test on the John Armstrong farm. One mile north of Beebe, Section 11, Rome Township, Carner Smith and others have a very light pumper in the first Cow Run sand at a test on the John & Raymond Parsons farm.

Davis Brothers have a duster in the stray below the Macksburg 500-foot sand at a test on the Noble Davis farm, in the southeast quarter of Section 36, Oliver Township, Noble County. At the headwaters of Newells Run, Section 7, Lawrence Township, Washington County, F. L. Johnston and others have a duster in the Berea grit at a test on the George G. Bate farm.

Muskingum County

In Section 22, Monroe Township, Muskingum County, the White Eye Oil & Gas Co. has completed No. 5 on the J. R. Atkinson farm good for 5 bbls. a day. In Lot 10, Adams Township, the Kemrow Oil Co. has a duster at a test on the Soloman Proakrig farm.

Three miles south of Chesterhill, in Section 19, Marion Township, Morgan County, F. M. Selby has completed a test on the Oliver Edgerton farm. It is a fair gasser in the Macksburg 500-foot sand. Two miles south of Joy, Section 26, same township, the Bowman Oil & Gas Co.'s test on the O. M. Lovell farm is a light gasser in the stray sand below the Berea grit.

In Section 18, Clay Township, Knox County, the Preston Oil Co.'s No. 3 on the B. F. Baird farm is good for 10 bbls. a day in the Berea grit. In Morgan Township, A. J. Weidman and others have completed a test on the G. O. Hays farm. It is dry in the Berea grit. In Section 19, Clay Township, the Rocky River Oil Co. had the same luck at a test on the W. O. Elliott farm.

In Lot 5, Hopewell Township, Licking County, the Pure Oil Co. completed and shot in the Clinton sand a test on the James P. Drumm farm. It is a light pumper, good for 10 bbls. a day. In the southeast quarter of Section 24, Green Township, Hocking County, the Griffin Producing Co. completed in the Clinton sand No. 6 on the Marlow Oil Co. lease showing for a very light pumper.

West Virginia

In Henry district, Clay County, West Virginia, the Virginian Gasoline & Oil Co. completed in the Big Injun sand No. 17 on the Brown, Swan, Goshorn & Sinnett lease and estimated good for 25 bbls. a day. In Geary district, Roane County, the Geary Oil & Gas Co.'s test on the M. E. Church lot is a duster in the Squaw sand. This location is in the village of Wallback on Cookman fork of Big Sandy Creek.

At the present time nearly all completions in the West Virginia fields are gassers. In Lincoln district, Marion County, the Owens Bottle & Machine Co. completed a test on the A. N. Amos farm, a gasser in the fifth sand. In Paw Paw district, the same company's test on the J. S. Snyder farm is a gasser in the Gantz sand.

The United Fuel Gas Co.'s second test on the J. G. Keffer farm, Smithfield district, Roane County, is a gasser in the Big Injun sand. In Walton district, the same company's second test on the William Campbell farm is a gasser in the same formation. In the same district, the United Fuel Gas Co.'s test on the L. M. Kelly farm, and in Geary district, the same company has Big Injun sand gassers on the F. G. Jackson farm. In Jefferson district, Lincoln County, the United Fuel Gas Co.'s No. 7 on the Horse Creek Mining & Land Co.'s tract is a gasser in the Berea grit. In Carroll district, L. R. Sweetland has a gasser in the same formation at a test on his own farm. In the same district, the Cambridge Gas Co.'s second test on the H. H. Wade farm is a gasser. In Sheridan district, H. H. Dial and others have a gasser in the Berea grit at a test on the J. M. Ferrell farm.

Roane County

In Harper district, Roane County, the United Fuel Gas Co. has a gasser in the Big Injun sand at a test on the T. B. Summers farm. In Walton district, the Empire Petroleum Co.'s second test on the E. A. Thompson farm is a gasser in the Big Injun sand. In Geary district, the United Fuel Gas Co.'s test on the James Reed farm is a gasser in the Big Injun sand. In Union district, Ritchie County, the Pittsburgh & West Virginia Gas Co. has a gasser in the Big Injun sand on the Lewis Garrison farm.

On Hughes River, Clay district, Ritchie County, the Pittsburgh & West Virginia Gas Co. has completed No. 3 on the Okey Nutter farm. It is a duster. In Duval district, Lincoln County, R. R. Cameron's test on George P. Alderson farm is a gasser in the Berea grit good for 500,000 feet. In Big Sandy district, Kanawha County, the United Fuel Gas Co. has a fair gasser in the Big Injun sand at a test on F. M. Tawney farm. In Crook district, Boone County, the Owens Bottle & Machine Co. is due in the sand at a test on the U. S. Anderson farm.

In Liberty district, Marshall County, the Manufacturers Light & Heat Co.'s No. 3 on the Ellis Thomas farm is dry and abandoned at 2,700 feet. In Center district, Gilmer County, Okey Bennett & Co. have a gasser in the Maxon sand at a test on the James F. Shook farm. In the same district, the Chartiers Oil Co. drilled down an old well on the Daniel Huffman heirs' farm. It is a gasser in the Big Injun sand.

Week-End Completions

At the close of the week of development work both southeastern Ohio and West Virginia completed some better than

(Continued on Page 116)

OHIO COUNTY, KENTUCKY, PRODUCER IS FLOWING 16 BARRELS AN HOUR

By Whit
Staff Correspondent, Kentucky-Tennessee

OWENSBORO, Ky., Nov. 15. — The western Kentucky division is once more in the limelight, as one of the coming producing fields of the Blue Grass State is believed to have been found where least expected, near Hartford, the county seat of Ohio County, in the Owensboro Field. While drillers in the Owensboro Field have been successful in getting oil in the field located at the junction of the three counties of Daviess, Hancock and Ohio, the majority of these wells were small producers, some yielding 5 bbls., some 100 or a little better. It remained for a newcomer in the field to bring in a well that overtops them all. The Ellis well on the Weller lease in Ohio County is pronounced by conservative oil men to be probably by far the best oil well in the Owensboro area. This well has been flowing at the rate of 16 bbls. an hour since given a shot. Fortunately there was no delay in connecting the well to the pipeline. It is located close to the properties of the Ohio Oil Co., which already has a number of producing wells, and the laying of a line to the new well was a matter of only a few hours.

Development work in other fields throughout the state is quiet, although some remarkably fine producers are being found in the Barren County Field by the Consolidated Oil & Gas Co. on the Duff lease, in the Hall Baker Pool, the last completion reported good for 50 bbls. initial. This is one of the best-looking properties in the western division, and the wells are renowned for their staying qualities after settling down. The Duff farm contains a large acreage, as there have been 57 wells completed on it so far, with many other locations undrilled.

Week's Work

A summary of the week's work in the Kentucky Field shows 21 completions, 16 producers with an initial production of 644 bbls., 3 dry holes and 2 gas wells. Compared with the previous week, there were 7 less completions, 5 less producers, 322 bbls. more production, 2 less dry holes and the same number of gas wells. These wells were distributed by districts and counties as follows:

County—	Comp.	Wells	Oil Prod.	Dry	Gas
Barren	9	9	195	0	0
Owensboro	3	2	424	1	0
Warren	2	1	5	1	0
Morgan	3	2	5	0	1
Lawrence-Johnson	1	1	10	0	0
Johnson-Magoffin	1	1	5	0	0
Floyd-Knott	1	0	0	0	1
Allen	1	0	0	1	0
Total	21	16	644	3	2
Last week	28	21	322	5	2
Difference	7	5	322	2	0

Eastern Division

Very little was reported from the eastern division of Kentucky during the past several days. In District 31 of Johnson-Magoffin Counties, Hupp, Duff and Chiles are due shortly to bring in three new wells on the three Whitt leases. In this district the Hartman Oil Co. is reported to have brought in another 5-bbl. pumper in No. 2 on the J. J. Pace farm.

In District 30 of Morgan County, along the line of Morgan, Lawrence and Johnson Counties, the Andy Lick Oil Co.'s No. 1 on the John Burns farm is a 2-bbl. pumper, while No. 2 developed into a

(Continued on Page 114)

3 GOOD BETS

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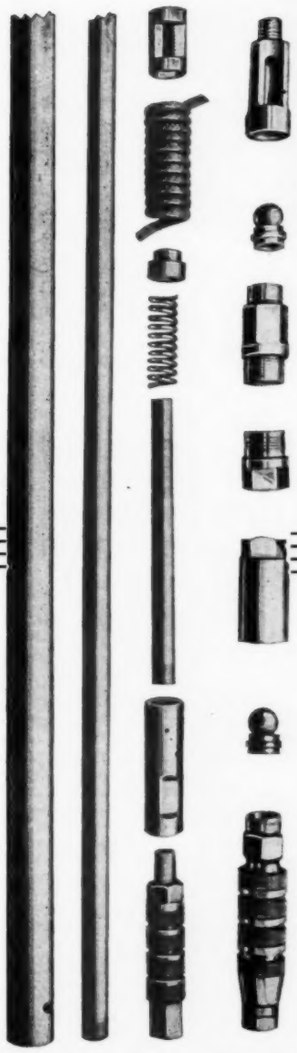

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Products That Cut Down Your Underground Overhead

Central Ohio Leads in Completions

Had More Than Lima, Indiana and Illinois Combined. Good Wells in Allendale and Pike County

By Whit
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Nov. 13.—The Central Ohio Field had more completions than the three other fields combined. In the Indiana end, Henry Skidmore and others brought in a 110-bbl. initial producer in a third attempt on the Walter Miley farm, Logan Township, Pike County. An unconfirmed report came from Sommerville, in Gibson County, Indiana, that a nice showing of oil was found at a depth of 1,020 feet by Nelson Brothers in a wildcat. The drill also passed through a fairly good gas sand. The well is but one-half mile west of Sommerville.

Another good well has been added to the Allendale Field of Wabash Township, Wabash County, Illinois, on the Breen lease, estimated at 150 bbls., as well as one at 70 bbls., on the Madden farm, and one at 60 bbls. on the Joe Keyser farm.

Lima Field

Completions were scarce in the old Lima Field of northwestern Ohio, there being but two new wells brought in, both rather light pumpers. There are a dozen new wells that are nearing the pay sand in all parts of the old field and the next couple of weeks should show an improvement, if weather conditions remain good.

One of the busiest companies in the field is the Oko Oil Co. of Lima, which has three or four strings running regularly in the new pool several miles south of Perrysburg, east of the Dixie Highway in Perrysburg Township, Wood County. Some of the wells in this pool have been 30 to 50 bbl. initial producers while others are small. This company has just brought in its smallest producer in the pool, No. 1 in the northwest corner of the George Dauer farm, on the oil map as the M. Deverna, in the northwest quarter of Section 32, and directly south of the George Deverna lease which has shown some of the best of producers. The well on the Dauer farm is reported as good for only 4 bbls., on the pump; top of Trenton, at 1,238 feet and drilled 42 feet in the sand. Although this well did not turn out according to expectations it is in good territory and it is believed it will continue for a long period as a steady producer.

In Gibson Township, Mercer County, Samuel W. Tait Jr., brought in his second test, 900 feet from the south line and 250 from the east line of the Joseph Brunswick farm, in the southeast quarter of Section 33, for a 4-bbl. pumper. Sand was topped at 1,100 feet and drilled 50 feet in the sand.

Indiana

Four completions are reported from the Indiana Fields, all in the southwestern portion of the state, as the old Trenton Rock area in the eastern central portion failed to report any new completions. There are a number of wells due for completion in the new Berne Field in Adams County, in the Trenton Rock Field. Work in this particular district has been hampered by mud, which is no doubt the cause of the inability to bring any of them in.

In the Miley Pool, near Oatsville, in Logan Township, Pike County, Henry Skidmore and others' No. 3 in the southeast corner of the Walter Miley farm, in the northeast quarter of Section 14, is credited with an initial 24 hours' gauge of 110 bbls. at a total depth of 1,403 feet or 47 feet in the sand. In Section 13, same township, the Wiser Oil Co.'s No. 1 on the Ern Wilson farm, in the northwest quarter of the section, is credited with a production of 5 bbls. at a total depth of 1,416 feet, or 41 feet in the sand. Noble-Bolyard Oil Co.'s No. 10 well, 660 feet from the south and west lines of the D. S. Huey farm, in the northwest quarter of Section 27, near Oatsville, is a 5-bbl. pumper, sand being topped at 1,261 feet and drilled 21 feet in the sand.

Reports from Somerville, in Gibson County, is that Nelson Brothers, drilling one-half mile west of there, struck an oil showing at a depth of 1,020 feet after passing through a gas sand estimated to produce close to 500,000 feet per day.

In Fairbanks Township, Sullivan County, Hollingsworth and others' No. 5 well, 660 feet from the north and east lines of the J. F. Harrison farm, in the NW NE. Section 35, developed into a dry hole at 640 feet.

Illinois

Illinois reported only one completion outside of the Wabash County Field, and that was a well drilled deeper by the Ohio Oil in No. 4 on the J. Petty farm, Section 32, Bridgeport Township, Lawrence County. The well was an old producer at a depth of 1,040 feet and when drilled 43 feet deeper to a total depth of 1,083 feet, only produced 1 bbl.

Another good producer is reported in the Allendale Field of Wabash Township, Wabash County, being McAlpin Brothers and others' No. 5 on the Breen farm. Section 2, estimated around 150 bbls., after given a shot and put on the pump. The Adams Corner Oil Co.'s No. 4, on the W. O. Johnson farm, Section 6, northeast of Allendale, has penetrated the pay sand and is making a good showing. No. 3 on this farm, was a dry hole. There are several other wells in the vicinity of the Johnson well nearing the pay sand.

In the same field, the Mount Carmel Oil Co. is close to pay dirt at its No. 7 on the F. M. Leek farm, Section 1, close to the heart of what proved the richest pool discovered in Wabash County. This has been a remarkable property as the first six wells were producers and the lease had paid out several months ago after operations during a little over a year. Mayhugh and others are drilling Nos. 12 and 13 on the Kogan Heirs farm, another of the rich leases in the field. The Mahutska Oil Co.'s No. 6 well, 1,250 feet from the north line and 1,500 from the west line of the Mack Madden farm, in the northwest quarter of Section 7, pumped 70 bbls., from a sand topped at 1,406 feet and drilled 12 feet in the sand. Joe S. Young Jr. and others' No. 1 well, 1,000 feet from the north line and 200 from the west line of the Joe Keyser farm, in the northwest quarter of Section 13, pumped 60 bbls., from a total depth of 1,457 feet, or 27 feet in the sand. Same firm's No. 1 in the northwest corner of the Armstrong heirs' farm, in the NE of the SE, Section 13, was dry at 1,600 feet. In Friendsville Township, same county, Bell Brothers' No. 1 L. Armstrong, Section 6, pumped 7 bbls. at 1,565 feet.

Central Ohio

Development work is humming in the Central Ohio Field at this time as the idea is to get as many gas wells completed as possible to connect to the main trunk gas line before the extreme cold weather comes and those drilled for oil to have as many put on to power pumping plants as possible. There were 16 completions reported for the week.

In Liverpool Township, Medina County, the Logan Gas Co.'s test in the northeast corner of the L. Hance 43 acres, Section 3, is a very fair gas producer. Same company made a location for a test 730 feet from the north line and 300 from the west line of the Elmer Marsh 28 acres, same section. The Ohio Fuel Gas Co. is drilling No. 1 well 300 feet from the west line and in the center as to north and south of the Derhammer & Dorr 8 acres, Section 13, Lafayette Township, also drilling a test 660 feet from the south line and half way between the west line of the B. H. Nichols 52 acres, Lot 57, Sharon Township, same county.

In Sullivan Township, Ashland County, theh Klise-Eckstein-McCann Co.'s No. 4 in the southeast corner of the J. A. Spencer 138 acres, Lot 79, proved a rank duster. In Hanover Township, the Logan Gas Co. brought in a light gas well at a test in the northwest corner of the L. S. Siddle 40 acres, Section 24, and staked a location for a wildcat in the northwest corner of the Catherine Derr 80 acres, Section 16, Lake Township. The Ohio Fuel Gas Co. made a location for a second test in the southwest corner of the John E. Shoudt 20 acres, Section 26, Hanover Township, Hulse & Kunditz are drilling No. 3 in the northeast corner of the Clarence McCoy 129 acres, Section 3, Orange Township.

In Jefferson Township, Knox County, the Ohio Fuel Gas Co. has an average gas well at a test 1,775 feet from the north line and 335 from the west line of the Thomas M. McMahon 106 acres, Section 20, and a duster at a test in the southeast corner of the J. M. Miller 75 acres, Section 23. Upham Gas Co. is drilling a test in the northeast corner of the Maud Swingle 38 acres, Section 20. In Morgan Township, Wiedeman and others' test on the Jacob Hays farm, Section 20, proved a duster, as did Apple and others' test 750 feet from the south line and 175 from the west line of the Oliver Larion 100 acres, Section 20, Clay Township.

Chemical Oil & Gas Co. drilled a dry hole in No. 3 on the F. Adams 53 acres, Lot 31 and 240 feet from the north line and 750 from the east line of the lease, in Columbia Township, Lorain County. Wiser Oil Co. is drilling a test in the southeast corner of the Elmer Browand 56 acres, Lot 57, Penfield Township, same county.

Bert Cameron is drilling a wildcat in the southeast corner of the Walter Reed 100 acres, Section 30, Chippewa Township, Wayne County.

Ohio Fuel Gas Co. made a location for a test in the northeast corner of the Valentine Close 160 acres, Lot 13, Monroe Township, Holmes County. In Hardy Township, the East Ohio Gas Co. made a location for a second test in the southwest corner of the Samuel Franks' 100 acres, Section 12. In Paint Township, the

(Continued on Page 118)

ANOTHER COMPLETION IN SAGINAW; WARNING AGAINST OVER-DRILLING

By Whit

SAGINAW, Mich., Nov. 12.—The only completion for the week in the Saginaw Field was the Ohio Oil Co.'s second test on the Mershon-Eddy-Parker property, along Michigan Street, north of the Pere Marquette Railroad, in Carrollton Township, Saginaw County, which struck top of the Berea sand at 1,806 feet and drilled 21.5 feet in the sand for a total depth of 1,827.5 feet, showing for a 25-bbl. producer. This well is 400 feet northeast of No. 1 on the same property.

There are a number of wells tha with no bad luck are due for completion during the coming week, among which are the Cooper-Newberry Oil Co.'s No. 1 on the John Walzlein property, near Hermansau and Ash Streets; Cross and others' No. 1 along the Hermansau Road; Bliss Petroleum Co.'s No. 5 Casper Ulrich farm, Section 14, Saginaw Township; F. D. Barton and others' No. 1 along Niagara Street, not far from locations in which some oil was found in the Saginaw sand in the earlier explorations, some years ago; Saginaw Prospecting Co.'s No. 1 Peikert property on Hermansau Street and Thomas J. Gillian's No. 1 on his own property, on the Carrollton Road, near Weiss Street. These wells are all practically in proven territory.

Talk Oil Legislation

Some time ago there was a consideration of possible legislation needed in the Saginaw oil field and a Board of Commerce committee was appointed to study the question in a conference with State Geologist R. A. Smith. Most of the discussion before this meeting centered around the problem of plugging and casing wells so that salt brine, fresh water, oil and other mineral resources may not be contaminated, and whatever legislation the committee believes desirable will be submitted to the legislature at its next annual session, it is planned.

"A law should be passed," said Mr. Smith, "that, without being unreasonably drastic, will protect the deposits of salt, fresh water, bromides, oil, etc. Most of the bromine available in the country at the present time is contained in the deposits of Saginaw Valley, and it is highly important that this and other deposits be safeguarded."

"No oil operation here based on a single lot will receive the approval of the State Geological Survey or the Securities Commission as the basis for stock selling." State Geologist R. A. Smith said while on a visit to Saginaw to confer with the local men regarding oil legislation and to inspect the Saginaw Field.

Commenting upon the growth of town lot drilling in the northern section of the west side, Mr. Smith warned Saginaw people against carrying it to excess, at the same time repeating that the Saginaw Field has every prospect of being a profitable one if properly developed.

"The Geological Survey and the Securities Commission have laid down the policy that no stock selling project based on a single lot lease will be approved," he said. "We feel that this would be merely lending support of the State to an enterprise of doubtful value. Of course, if a group of people raise the money among themselves without a stock sale and drill a well under such conditions we have no control over their activities.

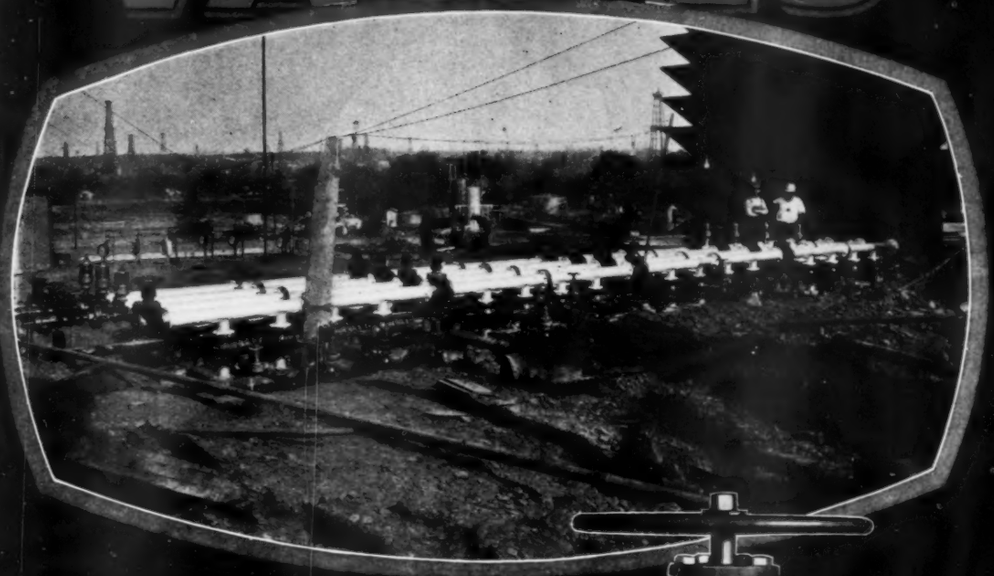
"But in order to make the Saginaw Field a uniformly successful one, drilling should be planned with care to avoid getting wells too close together. While it is impossible to make any hard and fast rule for all conditions, in general it is safe to say that 300 feet is the minimum distance that is desirable between wells. The Saginaw Field promises to be a profitable one if it is developed intelligently, but its success will be seriously jeopardized if wells are drilled too close together."

Some Town Lot Experiences

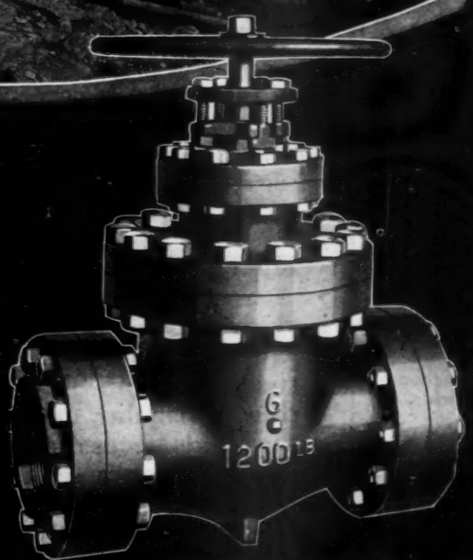
Clear indications of the danger in town lot oil development of drilling wells too close together and thereby ruining chances

(Continued on Page 114)

WESTCOTT VALVES



ON MANIFOLD AT AMERADA PETROLEUM CO'S AIR-LIFT STATION WEWOKA, OKLA.



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Natural Gas Developments

MORE HELIUM NEEDED BY THE GOVERNMENT

FORT WORTH, Tex., Nov. 13.—Early development of additional helium gas supply is needed to meet army and navy requirements, according to R. A. Cattel, engineer in charge of helium division of the United States Bureau of Mines, who has finished an inspection of the government's helium plant here. He believes Congress will provide funds for a 25-mile pipeline from the helium gas wells in Nocona Field to connect with the pipeline now running to the helium plant from Petrolia.

He stated the plant is in good condition, but is not getting enough helium gas to keep up with the demand. It is depending on the Petrolia Field, which is 20 years old and whose future production is problematical.

"We are receiving 2,000,000 feet of gas a day," he said, "and this is producing 65,000 feet of helium. In August, 1925, we were receiving 5,000,000 feet a day and with a few expenditures could handle 9,000,000 a day. It requires 2,500,000 feet for the dirigible Los Angeles; the ill-fated Shenandoah demanded 2,000,000 feet. Helium produced is used about equally by the army and navy."

PITTSBURGH TO GET GAS FROM KENTUCKY FIELD

PITTSBURGH, Pa., Nov. 13.—Plans for expenditure of $15,000,000 to insure a plentiful supply of natural gas for the Pittsburgh district were announced by A. W. Robertson, president of Equitable Gas Co., which has authorized the expenditure.

The action of the company follows a quiet survey of the Kentucky field covering a period of several years and will, according to the announcement, assure Pittsburgh of a gas supply for many years to come. The company now controls about 600,000 acres from which gas will be taken.

CARBON BLACK PLANTS IN WASKOM GAS FIELD

SHREVEPORT, La., Nov. 13.—Construction work for the erection of a 12,000,000-foot capacity carbon black company for the Owl Oil Co., in the Waskom gas field on the Louisiana side is well under way. Two metal warehouses have been erected and the packing building is nearing completion.

Material for the burning houses is on the ground and flow lines have been laid. Several cottages for employes have been built a short distance removed from the plant. The company recently completed two 12,000,000-foot gas wells in the Waskom Field on the Louisiana side.

RICH GAS NECESSITATES ENLARGEMENT OF PLANT

LOS ANGELES, Calif., Nov. 6.—The unexpected richness of the gas production of the wells in the west end of the city of Huntington Beach has caused an expansion in the original plans of the Ahlberg Gasoline Co., which has enlarged its plant in that field, which is still under construction, according to field reports. The Ahlberg at present is operating a portable plant at Ocean Avenue near Eighteenth Street pending the completion of the new absorption plant.

Huntington Beach wells are showing a high average volume of wet gas, according to field reports. Some wells produce more than 3,000,000 feet of gas a day, and the average is around 1,500,000 feet. The gasoline content also is high, running more than three gallons of casinghead gasoline per 1,000 feet in many instances.

MEANS OF KEEPING DOWN LEAKAGE ON TRANSMISSION AND DISTRIBUTION

By P. W. Martin*
The Dominion Natural Gas Co., Ltd., Brantford, Ont.

Gas lost by leakage is in most cases the largest item in the "lost and unaccounted for" gas, but in many instances there are other items of extreme importance such as thefts or stolen gas, lost meters, dead or slow meters, erroneous town border measurement, condition and adjustment of district pressure regulators, etc., which are equally as important to the leakage survey as the actual main testing work. These different items should all be considered when making a leakage survey in a distribution system.

The only really certain method yet devised for testing low pressure mains for leakage is the shut-in test. This test is made by shutting off all consumers at the meter preferably on the section to be tested, shutting off all supply of gas to this section by means of blind flanges or gas main bags with a water seal, and by-passing the gas around one set of bags through an accurate gas meter. The rate of flow through the meter necessary to maintain main pressure on this isolated section is a direct reading of the rate of loss due to leakage in the section of main tested. Knowing the size and length of lines under test, the rate of leakage per year per mile of 3-inch main can then be computed. The ratio of the nominal pipe diameters is ordinarily used in these calculations.

Test of Gas Losses

In order to get a direct comparison of the gas lost due to leakage as found in these tests, to the system leakage as determined by deducting the total amount of gas sold and used from the town border delivery, it is necessary to correct the amount of gas lost to the standard pressure base used on the town border meter. In this field, this pressure base is usually 4 ounces.

In testing low pressure mains, the pressures are taken by means of a manometer using water, so that a slight pressure variation will be noticed. These pressure readings are taken at frequent intervals and only meter readings taken while the pressure remains constant are used in the computations.

The use of the U gauge is very important. In addition to reading the pressures during the test, it is used for testing for unknown tie-ins. This is done by shutting off the supply of gas to the isolated section and dropping the pressure in this section. By observing the U gauge any tie-in is readily noticeable as the pressure will rise.

In selecting sections of main to be repaired after testing, the leakage per year per mile actual main is used as a basis. Other things being equal, the sections to be repaired would be those showing the highest unit leakage on this basis. In passing upon the question of completeness of repairs, however, the leakage per year per mile of 3-inch equivalent main should be considered.

In high or intermediate pressure systems it might be advisable to use the pressure drop method as devised by the Bureau of Mines, if a mercury column or dead weight tester were used for obtaining the pressure drop. Where formula

$$Ly3 = \frac{3151.55\ d\ (P_1 - P_2)}{T}$$

Ly3=Leakage per year per mile of 3-inch main in M cu. ft.

d=Actual internal diameter of pipe in inches.

$P_1 - P_2$=Abs initial and final pressure in lbs. at Std. Temp. conditions.

T=Time in minutes for pressure to drop.

*Before Natural Gas and Petroleum Association of Canada, Niagara Falls, Ontario.

Repairing Leaks

The principal thing to bear in mind on any repair job is to have the repair when completed in as good condition as a new installation, so that it will not be necessary to repair the same place for at least 10 to 15 years. When it is found necessary to repair the same places at frequent intervals, the repair work has not been properly done and a change in procedure is indicated. This usually happens in soils high in corrosive acids or alkalis, in which case it is advisable to use pipe and fittings covered with a protective coating to withstand this corrosive action.

Another cause of frequent repairs is electrolysis. When this condition is found to exist, steps should be taken at once to have the condition remedied. In most cases, this will be found adjacent to street railway systems, where a portion of the return current is traveling on the pipelines. This can be usually remedied by insisting that the railbonds are in good condition or by connecting a conductor between the pipe and the rails at points where they cross or are in close proximity.

Bell and spigot cast iron pipe with lead joints is another source of leakage quite commonly found in natural gas distribution plants. This is due to the excessive temperature changes in the gas which cause expansion and contraction of the pipelines to a much greater degree than found in artificial gas practice. Caulking a joint which has been leaking will not make a permanent job on pipe carrying natural gas, and a leak clamp is necessary to complete the repair. When properly applied the lead joints with the clamp will make a satisfactory repair.

Prevention of Leaks

The most economical method of keeping down leakage is the prevention of leaks. This is done by exercising especial care in new construction work and in daily operation of the plant. When laying mains or services nothing but first-class pipe and fittings should be used. It has been found that painting or treating pipe will extend their period of usefulness more than enough to pay for the treating.

In laying out a main, care should be taken to avoid other ditches or car tracks. Also, the ditch should not be dug deeper than the main is to be laid in order that the pipe can lie on solid ground. If this cannot be done, the pipe should be supported in at least four places per joint with painted or creosoted wooden blocks.

Avoid rocks adjacent to pipe when back filling, as these tend to remove the protective coating on pipe, and also retain moisture which aids any corrosive action which might be started.

All new mains should be tested for leaks by the shut-in method before being pronounced completed.

Probably 60 per cent of the leaks found in a distribution plant are on services and service connections. A large portion of these leaks may be prevented by laying the service below frost and in using care in connecting them. Chisel taps should not be made under any circumstances, but the taps should be made with a tapping machine. Where a welding outfit is available, it is very good practice to weld a 1¼-inch screw coupling onto main, being sure to secure a strong weld. Then by starting off with a street tee, the entire service can be laid to the meter shop cock, and tested by air pressure before the main is tapped. After the service has been tested the main is tapped through the street tee. This method saves the loss of gas during the time a saddle is tightened on the main and gas is not wasted in testing the service.

In cases where it is necessary to use a saddle, it should be installed very carefully. Only saddles that fit the pipe perfectly should be used, and they should be of the double strap design. The saddle gasket should be cut to exact size and should be made from a good grade of sheet asbestos packing, or of paranite ⅛-inch rubber sheet packing or their equivalent. Soft rubber sheet packing will not remain permanently tight in a great many cases.

Operating pressures should be carried at an absolute mininmum consistent with good service at all times. This necessitates frequent pressure surveys and requires the installation of a pressure gauge at or near the low pressure point in the system.

CARBON BLACK PERMIT GRANTED IN UTAH AREA

WASHINGTON, D. C., Nov. 13.—Oil and gas leases to 640 acres at a flat royalty of 5 per cent and to 1,920 acres at a sliding royalty rate scale of 12½ to 33⅓ per cent have been granted to George B. Jenkinson of Denver, Colo., it was announced at the Interior Department.

The lands are in Grand County, Utah, on what is known as the Cisco Dome gas field. The leases were granted as the result of a discovery of gas peculiarly adapted for the manufacture of carbon black. The leases provide the gas may be used for this purpose on condition that modern and improved methods are employed, and that if, after 10 years the Secretary of the Interior finds a demand for the gas for domestic or industrial purposes, the lessee shall be required to supply the gas to gas line connections. The leases further provide that where the gasoline content is more than one-half gallon per 1,000 feet, the gasoline shall be extracted and a royalty paid to the Government on all gasoline produced.

The well was drilled to a depth of 1,960 feet with a flow of approximately 20,000,000 feet per day, and was completed about October 11, 1924, at a cost of $55,000. A second well has recently been started, and early construction of a carbon black plant on the leased premises is anticipated.

MEDAL FOR GAS WORKER

A medal denated by Walter R. Addicks, senior vice president of the Consolidated Gas Co., for conspicuous bravery in the gas industry was recently awarded to Harry F. Ketz, an employe of the Southern Counties Gas Co. of California, for his conduct in the Santa Barbara earthquake last year. The medal is known as the American Gas Association Meritorious Service Medal and is said to be the most prized award made in the gas industry. It was bestowed on Mr. Ketz because, at great personal risk, he turned off the gas supply when the earthquake commenced, thus averting danger of a conflagration.

GAS LINE ABOUT READY

BAKERSFIELD, Calif., Nov. 6.—A $350,000 Kern County development project will be completed when Midway Gas Co.'s 33-mile gas line between Grapevine and Monolith, east of Tehachapi, is put in operation on or about November 15. For the first time in history the mountain community of Tehachapi will be supplied with natural gas for its homes and industries. The greater part of the gas supply will be used to operate the plant of Monolith Portland Cement Co., at the eastern entrance to Tehachapi Valley.

In the tropics

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MEN KNOWN IN OILDOM

C. R. Minor

C. R. Minor, third vice president of the Gulf Refining Company and head of the Gulf company's Louisiana-Arkansas division, is one of the executives of the petroleum industry who rose from the ranks and directs an organization known throughout the division for its esprit de corps.

His 22 years of association with the industry has given him a keen insight into the affairs of the oil business as well as an intimate knowledge of its different phases. He is always ready to give full consideration to suggestions for improvements in existing methods of producing and transportation of crude. Likewise, various theories that appeared good were given his attention and adopted if found practicable. The aggressiveness of the Gulf company in Louisiana and Arkansas is revealed in pipeline reports which show it to be the ranking producing company in the division.

In addition to the demands of his duties with the Gulf company, Mr. Minor finds time to take an active part in the civic affairs of Shreveport. He was chairman of the building committee responsible for the erection of Shreveport's new Y. M. C. A. building, one of the most striking structures of its kind in the South. He is vice president of the Louisiana-Arkansas division of the Mid-Continent Oil and Gas Association and a director of the Shreveport Chamber of Commerce.

Chronologically, Mr. Minor's first association with the oil industry dates back to 1904 when he was connected with the Rio Bravo Oil Company, of Houston, Tex. The next year found him connected with the old Guffey Petroleum Company, of Beaumont, Tex., and during the following two years he was directing the affairs of the Evangeline Oil Company of Jennings, La. During the next two years he was associated with Capt. C. A. Barbour in tug boat transportation with headquarters in Houston. In 1911, he became associated with the Gulf company and from that time until he rose to his present position he held various positions with the Gulf company, and associated companies. Mr. Minor came to Shreveport in Febraury, 1918.

Mr. Minor was born in Canon City, Colo., December 25, 1880, and received his early education in the public schools of that city. He finished his college training in the University of Pennsylvania.

PERSONAL PARAGRAPHS

A. O. Baker of The Victaulic Company, has been in Shreveport, La., on a business trip.

* * *

R. G. Collins, superintendent of The Texas Company's Shreveport, La., refinery has returned to his home from a brief business trip to Texas cities.

H. Cannon, Shreveport, La., broker in refined products, has moved his offices to Tulsa.

* * *

Levi Smith, president of the Big Lake Oil Company, was in Fort Worth a couple of days recently.

* * *

Homer T. Lamb, president of the Red Bank Oil Company, has returned to Tulsa after several weeks spent in the East.

* * *

Max Furhman, president of the Furhman Petroleum Company of Okmulgee, Okla., has been in Ohio for 10 days.

* * *

Hiland P. Lockwood of Los Angeles, Calif., who has royalty interests in the Coastal region, is in Houston, Tex., on business.

* * *

J. W. Stewart, vice president of the Lago Oil Corporation, is leaving shortly for Maracaibo, Venezuela, to make an extended stay.

* * *

Phil B. Dolman, consulting geologist, formerly of Tulsa, Okla., has removed his offices and residence to 18 N. Oakes Street, San Antonio, Tex.

* * *

George D. Locke, vice president in charge of sales for the Barnsdall Oil Company, was a Tulsa caller last week, and has returned to Chicago.

* * *

H. F. Miller, in charge of gasoline purchases for the Carter Oil Company, has returned to Tulsa after several months spent on the Pacific coast.

* * *

D. D. Kincaid, Shreveport, La., drilling contractor, was in Shreveport last week from McCamey, Tex., where he has a string of rigs in operation.

* * *

Henry Hubbell, chief geologist of the White Eagle Oil & Refining Company of Wichita, Kans., spent a few days in the Oklahoma fields recently.

* * *

John Leonard, who has been prominent in the producing end of the oil business for 35 years, visited J. S. Cullinan in Houston during the week.

* * *

D. M. McCargar, oil field specialist of the Wagner Electric Corporation, St. Louis, Mo., visited various Mid-Continent points en route to California.

* * *

N. E. DeRousse of Calgary, Alberta, Can., representative of the Oil Well Supply Company in Alberta, left recently for a visit to Pittsburgh, Pa.

* * *

C. R. Tyrell, vice president of the Plateau Oil Company, with headquarters in San Antonio, Tex., was in Fort Worth, Tex., several days on business.

* * *

Oscar N. Howard, oil producer, has returned to Los Angeles, Calif., after spending several weeks in the Mid-Continent field where he inspected his holdings.

* * *

C. J. Haskell, formerly connected with the Middle States Oil Company but now an independent oil producer of San Antonio, Tex., visited Tulsa last week.

* * *

James Gavin, formerly of Tulsa, Okla., was elected president of the Burning Oil Distributors Association, an organization of all retail fuel oil dealers in Chicago.

* * *

John L. McCloskey, sales manager of the Power Manufacturing Company, Marion, Ohio, is touring the Texas and Louisiana fields in the interest of his company.

* * *

N. C. McGowen, vice president of the Palmer Corporation, in charge of operations in Louisiana and Arkansas, made a brief business trip to Dallas, Tex., last week.

* * *

J. R. McCaldin who has lately been operating in San Antonio, Tex., and before that in North Texas and Louisiana, is back in San Antonio from a two months' stay in New York.

* * *

R. M. Snyder, secretary-treasurer and manager of the Southwestern Engineering Corporation, has just returned to Los Angeles from his visit to the mining district of Santa Barbara, Chilhuahau, Mexico. He also visited on this trip the new Panhandle district in Texas, where his company has opened offices at Amarillo and erected a warehouse at Borger.

John Sigmund, who has drilled eight wildcat tests at Aransas Pass, Tex., in a determined effort to find an oil pool in San Patricio County, is back in Aransas Pass after a trip north.

* * *

F. C. VanCleave, superintendent of the Gulf Pipe Line Company's Arkansas-Louisiana division, has returned to his headquarters in Shreveport, La., from a brief business trip to Houston, Tex.

* * *

Paul N. Gregg, general counsel of the Union Oil Company of California, is expected back in Los Angeles within a few days. Mr. Gregg has been in New York completing the Pantepec deal.

* * *

Giles Wimberly, formerly in the Gulf Production Company's executive office at Fort Worth, Tex., has resigned to go with the West Adams Royalty Company of the same city as royalty scout.

* * *

Theo Hicks of San Antonio, Tex., is driving through by automobile to Battle Creek, Mich., where Mrs. Hicks is in a hospital. Before returning to San Antonio he expects to go on to New York.

* * *

H. S. Headlund, vice president of the W. H. Barber Co., Chicago, Ill., and R. H. Lambert, sales manager for that company in Tulsa, were recent visitors in Shreveport, La., and El Dorado, Ark.

* * *

R. A. Mueller, general manager of the Gray Tool Company of Houston, Tex., is spending a few days in Tulsa visiting the trade with John Neilson, the company's representative in the Mid-Continent Field.

* * *

Thomas Kennedy and C. L. Link, oil operators of Denver, Colo., have been looking over the Scottsville Field of Allen County, Kentucky, and are going to do some development work. They previously were connected with the Carter Oil Company.

* * *

David Donoghue and Edgar Marstons of the Texas Pacific Coal & Oil Company of Fort Worth, Tex., were Tulsa visitors last week in company with Jack Kennedy, who is in charge of the Oklahoma operations for the company.

* * *

A. G. Curtis of Chicago, Ill., who until recently was a resident of Shreveport, La., is in Shreveport on a business trip. A few weeks ago The Texas Company brought in 3,600-bbl. initial well on Mr. Curtis' property in Caddo Parish.

* * *

R. H. Feltner, who has been an independent operator at San Antonio, Tex., for several years, has accepted a position at the head of the land department of the Southern Crude Oil Purchasing Company at San Antonio.

* * *

C. M. Coats of the Lion Oil & Refining Company, El Dorado, Ark., was a recent Fort Worth, Tex., visitor. He said his main purpose in "Cowtown" was "swabbing" Guy Mosley, head of the White Eagle Oil & Refining Company's Fort Worth office.

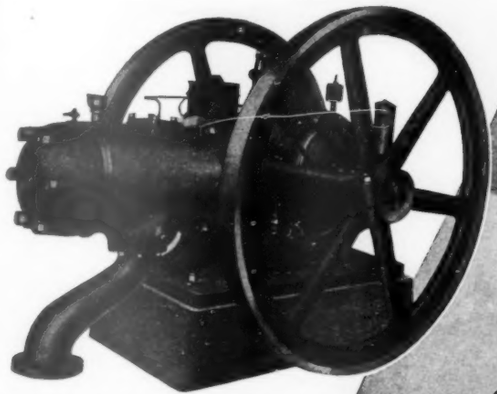
* * *

D. E. Buchanan, vice president of the Chestnut and Smith Corporation, manufacturers of natural gasoline, and Mrs. Buchanan, have returned to Tulsa from a month's pleasure trip to England, France and Germany. While in those countries Mr. Buchanan obtained an insight into economic conditions and the export situation in those countries, finding that in England business is virtually at standstill but in Germany it is steadily attaining pre-eminence in the commercial world.

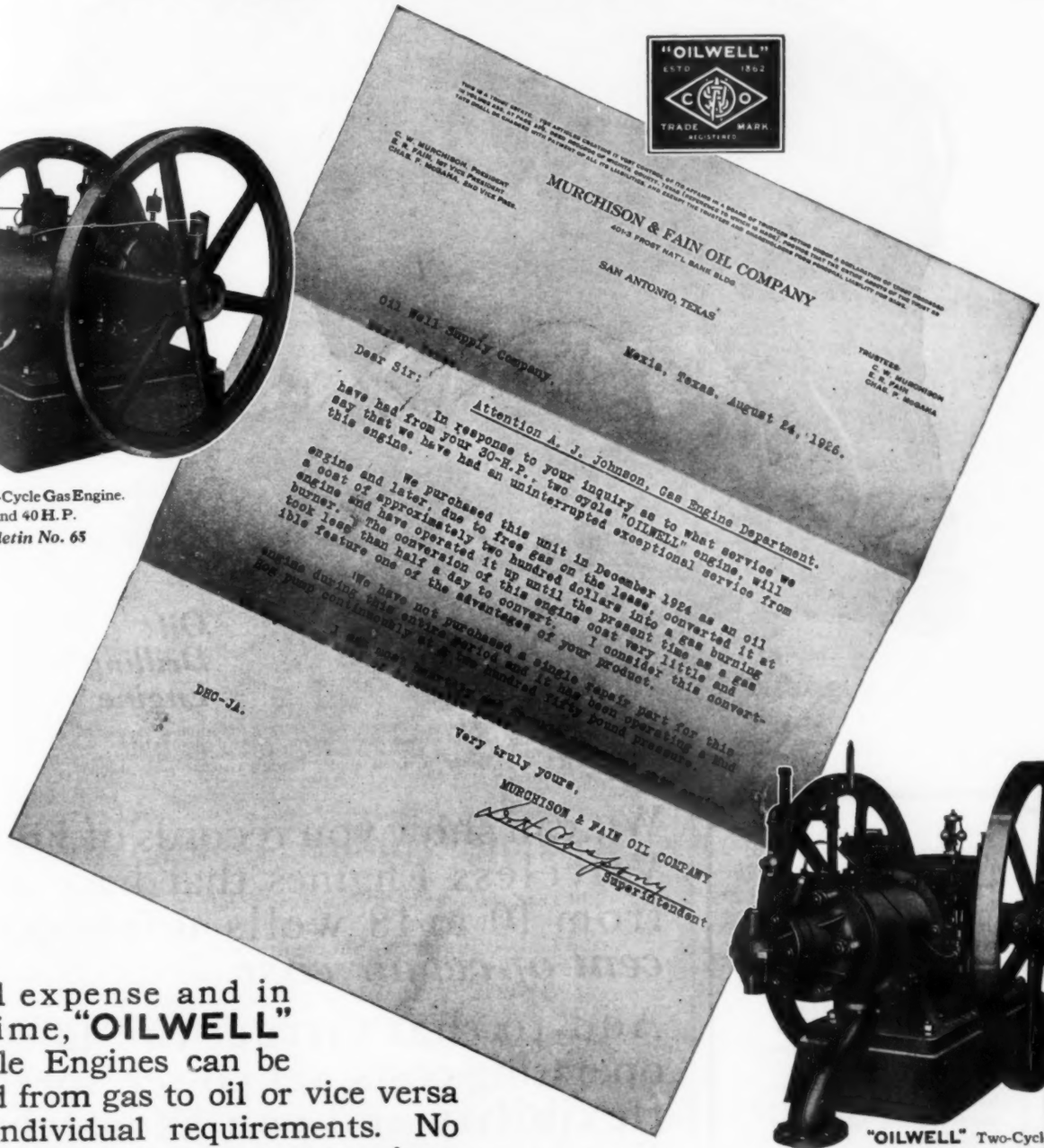
* * *

About 25 of the leading oil company executives and independent operators of Fort Worth, Tex., were guests of Sid and G. M. (Milt) Richardson Tuesday night, November 9, at the latter's home on Hemphill Avenue. A duck dinner, the principal ingredients of which were furnished by Frank Richardson, was a happy feature. The guests included F. J. Adams, W. D. Brookover, Glenn Garrett and Hugh Craig of the Gulf Production Company; W. A. Moncrief and J. E. Goode of the Marland Oil Company; J. H. Jenkins of the Tidal Oil Company; D. O. Bayless of The Texas Company; W. J. Marsh of the Amerada Petroleum Corporation; C. Frank Kelsey of the Independent Oil & Gas Company; Guy W. Mosley of the White Eagle Oil & Refining Company; Floyd Johnson of the Mahlstedt Oil Company; J. E. Fitzpatrick of the Deep Rock Oil Company; Judge Bailey, police judge, Porter Johnson, "Red" Rouse, Jack Richardson, A. A. Thomas and Ed Henry.

"OILWELL" Two-Cycle Engines
Are Convertible
From Gas to Oil or Oil to Gas



"OILWELL" Two-Cycle Gas Engine.
Made in 30 and 40 H.P.
Send for Bulletin No. 65



"OILWELL"
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REGISTERED

MURCHISON & FAIN OIL COMPANY
401-3 FROST NAT'L BANK BLDG
SAN ANTONIO, TEXAS

C. W. MURCHISON, PRESIDENT
E. R. FAIN, 1ST VICE PRESIDENT
CHAS. P. MORGAN, 2ND VICE PRES.

TRUSTEES
C. W. MURCHISON
E. R. FAIN
CHAS. P. MORGAN

Oil Well Supply Company,

Mexia, Texas. August 24, 1926.

Attention A. J. Johnson, Gas Engine Department.

Dear Sir:

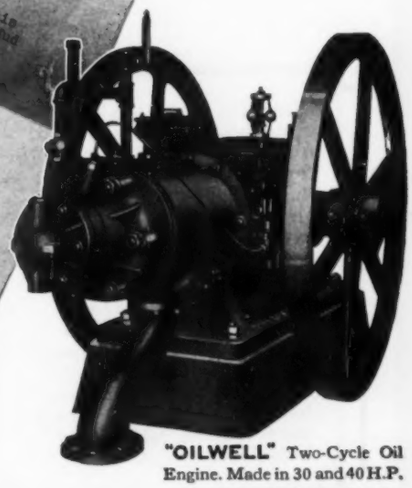
In response to your inquiry as to what service we have had from your 30-H.P. two cycle "OILWELL" engine, will say that we have had an uninterrupted exceptional service from this engine.

We purchased this unit in December 1924 as an oil engine and later, due to free gas on the lease, converted it at a cost of approximately two hundred dollars into a gas burning engine and have operated it up until the present time as a gas engine. The conversion of this engine cost very little and took less than half a day to convert. I consider this convertible feature one of the advantages of your product.

We have not purchased a single repair part for this engine during this entire period and it has been operating a good pump continuously at a [illegible] hundred fifty pound pressure.

DEC-JA.

Very truly yours,
MURCHISON & FAIN OIL COMPANY
Superintendent



"OILWELL" Two-Cycle Oil Engine. Made in 30 and 40 H.P.
Send for Bulletin No. 68

At small expense and in quick time, **"OILWELL"** Two-Cycle Engines can be converted from gas to oil or vice versa to suit individual requirements. No need to purchase two separate engines.

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OIL WELL SUPPLY CO.

NEW YORK—LOS ANGELES—PITTSBURGH, U.S.A.—SAN FRANCISCO—TAMPICO—LONDON
WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

POWERFUL DEPENDABLE

Oil Drilling Engine

Franklin Valveless Type AO Fuel Oil Drilling Engines for Mid-Continent and Western service. Price $3,700.00. For Eastern Service $2,600.00 and $3,350.00. Complete with self-oiling, reversible drilling clutch, circulating pump and fuel tank. All prices f. o. b. factory.

Franklin Valveless Engines are made in types for both Oil and Gas Fuel for cable tool drilling—for any condition or depth. The Franklin is a single cylinder, three-port, two-cycle VALVELESS engine and is constructed with the fewest possible number of parts. The construction keeps out all sand and grit; no valve grinding and the bath lubricating system used reduces lubrication bills 75%.

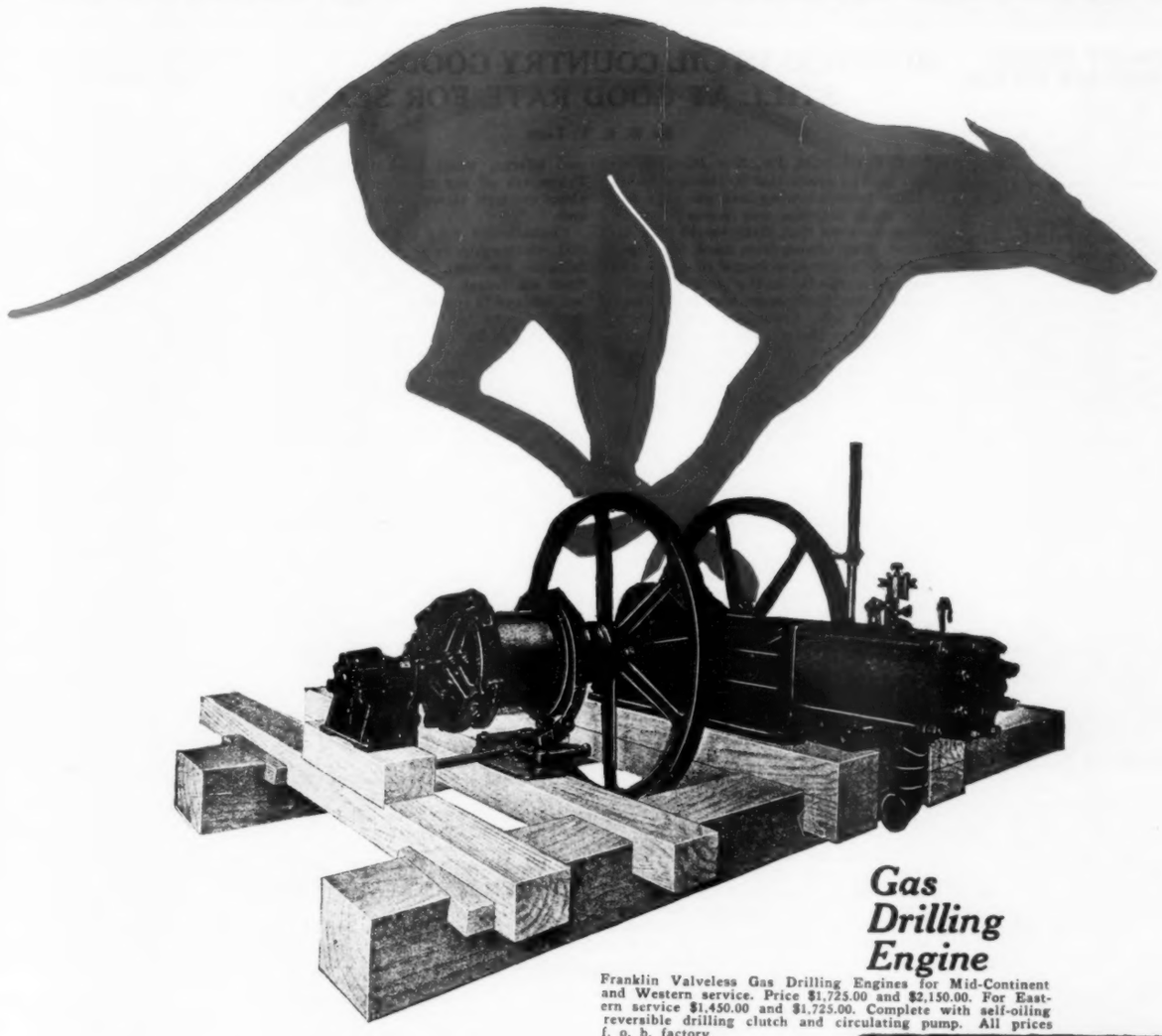
We can show you records of Franklin Valveless Engines that have drilled from 10 to 18 wells ***without one cent of repair cost.***

Add to that virtue, the lowest of operating costs, yet power, speed and flexibility and you know why the Franklins lead the field.

FRANKLIN VALVE

THEY BEAT STEAM

FAST FLEXIBLE



Gas Drilling Engine

Franklin Valveless Gas Drilling Engines for Mid-Continent and Western service. Price $1,725.00 and $2,150.00. For Eastern service $1,450.00 and $1,725.00. Complete with self-oiling reversible drilling clutch and circulating pump. All prices f. o. b. factory.

Interchangeable—Drilling, Pumping

Where gas is available the Franklin Valveless Gas Drilling Engine while being just as efficient and economical as the Oil Drilling Engine, it has another big advantage—INTERCHANGEABILITY. 25-30 H.P.—40 H.P.—50 H.P.—60 H.P. Gas Engines are all interchangeable on the same block. You can leave the Gas Drilling Engine on the block for pumping or replace it with one of less horse power without changing a single bolt.

Franklin Valveless Engine Co.
Franklin, Penna.

DISTRIBUTED BY

Atlas Supply Company
Muskogee, Okla., and Branches

New Martinsville Supply Company
New Martinsville, W. Va.

Wooster Tool & Supply Company
Wooster, Ohio

Bradford Sales Company
Bradford, Penna.

International Supply Company
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Washington Engine & Pump Company, Washington, Penna.

McEwen Brothers
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The American Tank Company of Colorado, Casper, Wyoming

LESS ENGINES

AT EVERY TURN

EQUIPMENT AND SUPPLIES

REVOLUTIONARY DESIGN IN NEW AIR FILTER

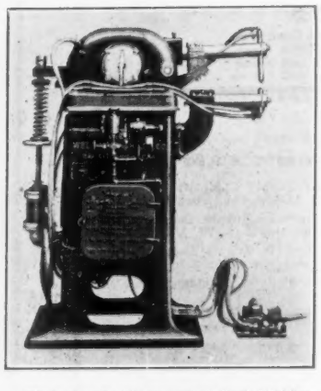
The American Blower Co., of Detroit, Mich., manufacturers of air handling equipment since 1881, announces a new air filter that is revolutionary in design and eliminates many difficulties in such equipment.

By means of this new filter, which is of dry plate design with hairlike tentacles for the arresting and retention of dust and dirt, dust-laden air is divided into a series of small jets which strike the flat filament coated surface of the plates, dust and soot are projected against the filament, seized and retained. The air, changing its direction and rebounding from this surface, flows through to the next plate and is carried through 10 successive dust removal operations of this type. As dust builds up on these flat surfaces, each preceding layer acts as a retentive member, the dust itself being the principal dust arresting and retaining factor for the ensuing particles of dust and dirt. In this way, the use of adhesives is avoided and the maximum load of a cleaner or filter is multiplied many times.

The outstanding advantages of this type of air filter are, the manufacturers point out, that it is impossible to clog the filter, that it does not require oil or other adhesives which have to be changed from time to time, and that it has a constant effect and constant efficiency and that dust builds upon dust and does not get in the line of air flow.

AIR OPERATED WELDER

In a description of its new high speed air operated spot welder, the Gibb Welding Machines Co. of Bay City, Mich., says: "Attempts to increase speed on a hand or foot operated spot welder have frequently resulted in poor welds, owing to the personal equation varying the length of time in the making of a weld.



High Speed, Air Operated Spot Welder

Although heat and pressure remained constant the time element changed more or less with each weld. In addition, speed on a manually operated spot welder where there is large production has always been accompanied by fatigue. The air operated spot welder insures uniformity in heat, pressure and time and as a result uniformity in welds. The operation by air is almost instantaneous. The slightest pressure at the air valve operates the machine. Production has been increased by the use of the high speed air operated spot welders."

MID-CONTINENT DISTRIBUTOR

The Bovaird Supply Co. of Tulsa has been appointed Mid-Continent distributor of Leidecker Tool Co.'s spiral bits.

BUSINESS IN OIL COUNTRY GOODS STILL AT GOOD RATE FOR SEASON

By B. E. V. Luty

PITTSBURGH, Pa., Nov. 15.—The report of steel production in October makes a much better showing than was expected, as a slight increase was shown when all estimates were that there would be a decrease. Such divergences have been very common in the past couple of years and must be attributed to the steel companies understating their operations in the common trade talk. Apparently they wish to avoid making their competitors jealous.

Allowing for differences in working time, production of steel ingots was approximately the same in September as in August, and increased about 2 per cent in October. Current reports are of decreased mill operations in many sections, but possibly November will show sustained operations nevertheless. Production in the 10 months of the year was 10 per cent above that in the same period of last year, and continuance of the recent rate would make the year between 8 and 9 per cent above last year, which was a record year, but by an insignificant amount, the 1917 production being exceeded by only 1 per cent. Thus there is nothing particularly remarkable about production this year, as the country has been growing, and there is no substantial basis for expecting a decrease next year.

Seasonal Activity

The finished steel markets have been growing quieter week by week in the past few weeks, but the decline in activity appears to be overemphasized. It does not necessarily betoken any loss of consuming activity, in a general way, for at this time of year there are naturally some seasonal decreases, and then there is the factor that in bars, shapes and sheets there have lately been deliveries at lower prices than buyers could now duplicate. Buyers' stocks may have increased somewhat in these lines, and lighter buying at this time would merely be by way of equalization.

Finished steel prices are firm all along the line. Bars and shapes are held at 2.00 cents, f.o.b. Pittsburgh mill as minimum. A little concern has been felt lately in connection with a new Cleveland producer of bars making a price of 2.00 cents f. o. b. mill Cleveland, but the range of sizes is limited and the basis of 2.00 cents, Pittsburgh, is not likely to be impaired. Sheet prices as advanced over a month ago are holding and sales are as heavy as would be expected after an advance. Sheet mill operations have tapered off, being at about 80 per cent last week, against an average of fully 90 per cent in October. Even an 80 per cent operation is high, as to sheets in general, for there is only a light production of automobile sheets.

Pipe Outlook

Buying and specifying in oil country tubular goods has decreased farther, but is still at a good rate for this time of the year. Mills have been catching up in deliveries but are still somewhat behindhand, and will have substantially full operation of lap weld departments through this month. Afterwards there will be the matter of replenishing stocks, with a possibility of some line pipe orders being placed for winter production, as deliveries have been hard to arrange in the past few months, and there may be just as much difficulty next year. Merchant pipe buying is quite fair for the time of year, but is considerably lighter than a couple of months ago. Pipe mills are averaging an operation of about 90 per cent, the chief idleness being in butt weld.

Coal prices in Western Pennsylvania and West Virginia have been tumbling after their sensational rise, which culminated October 27. Then there was little coal offered, while now there is much. Prices are off say one-third but are still about one-half above those of early summer.

Connellsville coke did not advance in full relationship to the higher prices obtainable for coal, but is now receding from its recent top. Offerings are light but demand is very light indeed. Standard furnace coke for spot shipment is quotable at $4.75 to $5.25 and standard foundry at $6.00 to $6.50 with changes of declines in the near future.

Valley pig iron is not establishing itself at the recent dollar a ton advance in asking prices, being still quotable at $19.50 for Bessemer, $18.50 for basic and $19 for foundry.

NEW WINCH-EQUIPPED TRACTOR ON MARKET

A new winch-equipped tractor is being placed on the market by Henry E. Bullock of Chicago, Ill. The manufacturer claims that this is not an ordinary tractor with a winch applied, but is a complete, compact, powerful unit, which possesses unusual degree of mobility.

The unit has a 40-horse power motor, which operates at a normal speed of 900 revolutions per minute, and the winch is equipped with four speeds forward and two reverse. The forward speeds range from 97.5 to 16.2 revolutions per minute, and the reverse speeds from 23 to 16.2 r.p.m.

The tractor has a caterpillar crawl, and weighs 10,600 pounds.

H. W. PLATENBERG TENDERS RESIGNATION

H. W. Platenberg has tendered his resignation as sales manager of Axelson Machine Co. His successor has not yet been appointed. He has agreed to conduct the duties of his post until December 30 or until his successor is appointed. Mr. Platenberg has been associated with Axelson Machine Co. for over five years as manager of their Mid-Continent division and as general manager of all sales.

NEW ELECTRIC FLOW METER

The Brown Instrument Co. has perfected a new electric flow meter, designed to stop waste and reduce overhead in steam plant operation. The new instrument uses the inductance bridge principle, which is something new to flow meter design. It has no voltage regulator, no compensator, no "step" contacts dipping in mercury, no delicate bearings, no pressure tight bushings in manometer, and no electric circuits inside the pressure chamber.

ORDERS STEEL OIL BARGE

The Cities Service Refining Co. has placed a contract with the Bethlehem Shipbuilding Corp., at Quincy, Mass., for a 12,000-bbl. steel oil barge, for transportation of the products from the refinery at Boston, Mass., not only around Boston Harbor, but along the coast.

BUYS GASOLINE PLANT

One of the new type 75 gasoline absorption plants completely factory built and assembled by the Southwestern Engineering Corp. of Los Angeles has been shipped to the Skelly Oil Co. for installation at Eldorado, Kans. This new unit is normally rated to produce 7,500 gallons of gasoline per day.

STARTS WORK ON THIRD ENGINEERING BUILDING

Chain Belt Co., Milwaukee, has started work on a new engineering building at its West Milwaukee works. The building will house the steel fabricating and assembly departments, drafting room and general engineering offices of the contract division of its business.

This is the third major unit to be erected on the 59-acre West Milwaukee site, and is part of the general plan to gradually move the downtown Milwaukee plant at Sixteenth and Park Streets to the larger tract in West Milwaukee. When the engineering building is completed approximately half of the organization will be located at the West Milwaukee works.

The new unit will be of steel, brick and glass construction with approximately 80 per cent of the roof and walls in glass. Approximately 240 tons of steel are included in the specification. It will be 308 feet long and 120 feet wide with the exception of the office building which will be 144 feet wide. Frank B. Chase, Inc., Chicago, is the engineering and designing company.

The new building is to be equipped with every modern convenience and will have eight traveling cranes. Several new and larger machines are being added to the present equipment. The building will be devoted exclusively to the manufacture of contract engineering work, such as conveyors, elevators, traveling water screens, bunkers, hoppers and general steel structural work. Every department connected with that part of the company's business will be house in the new building, making it a self-contained unit in every sense.

The Chain Belt Co. was organized in 1891 for the manufacture of chain and power transmission machinery which naturally developed into the additional line of material handling conveyors. In 1908 the concrete mixer line was added and since developed to such an extent that the second large unit at West Milwaukee was built to house that branch of the business.

TRADE LITERATURE RECEIVED

The Atlas Lumnite Cement Co. of New York is circulating an attractive pamphlet dealing with the use of and the results obtained by the company's concrete mixture. This company has many connections with the oil industry.

To acquaint engineers and manufacturers with the Dodge Manufacturing Co., an attractive booklet is being circulated among the oil industry as well as other fields giving the story of the organization, its facilities and service. The booklet shows in double-page pictures views of every department of the plant, clearly illustrating the equipment used.

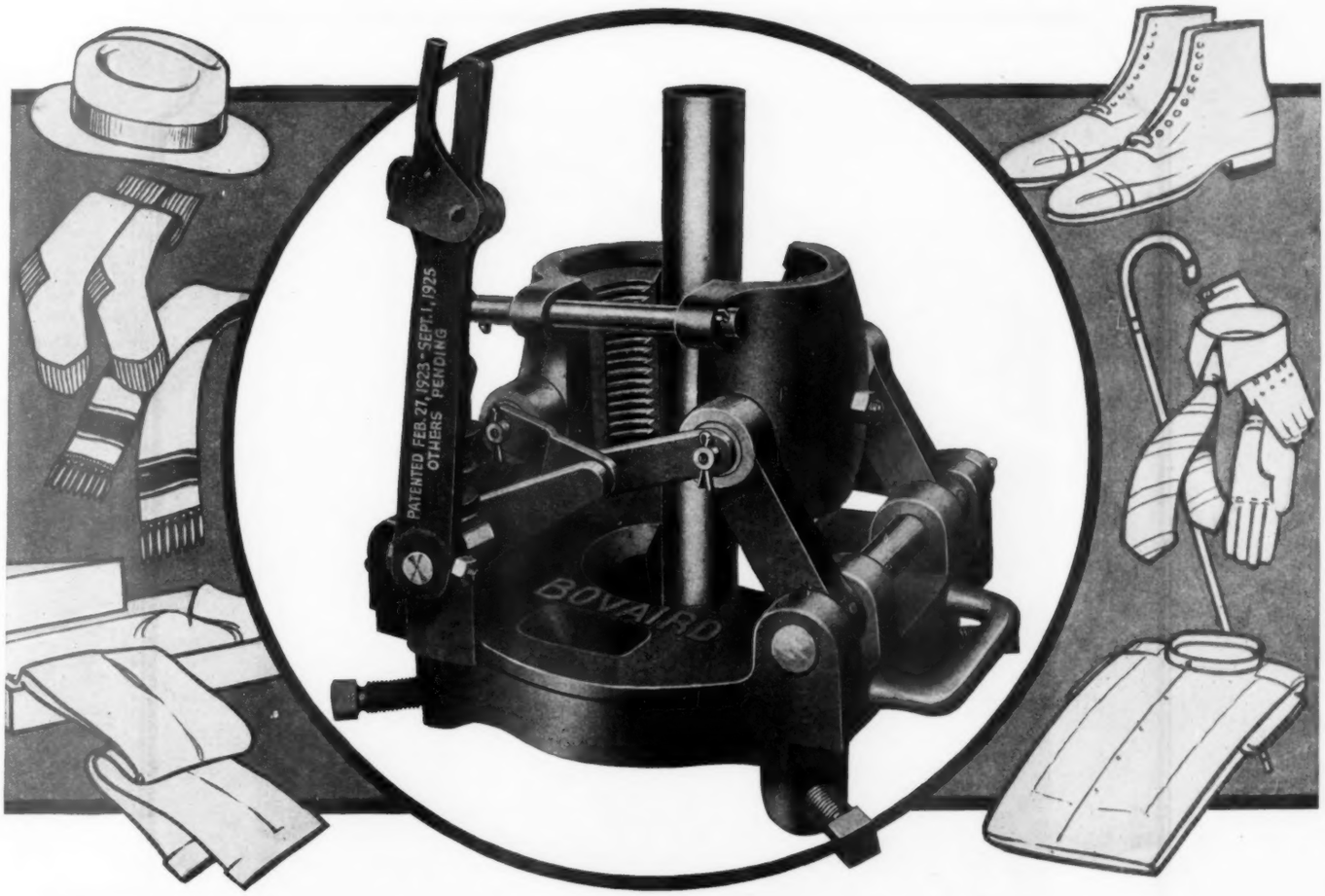
OPENS BRANCH OFFICE

A new branch office has been opened in Utica, N. Y., at 107 Foster Building, 131 Genesee Street, by Link-Belt Co. of Chicago, Philadelphia and Indianapolis. This, the thirty-fourth office, and the third within the State of New York, is devoted especially to the sale of Link-Belt silent chain and Link-Belt roller chain, and is in charge of F. P. Hermann, Jr.

VICTAULIC DISTRIBUTION

W. F. Waters, manager of the Smith Separator Co. of Tulsa, Okla., announces that his concern has taken over the distribution of Victaulic joints used in oil, gas and water pipeline work and manufactured by the Victaulic Co. of America.

BOVAIRD *Grip* TUBING SPIDER



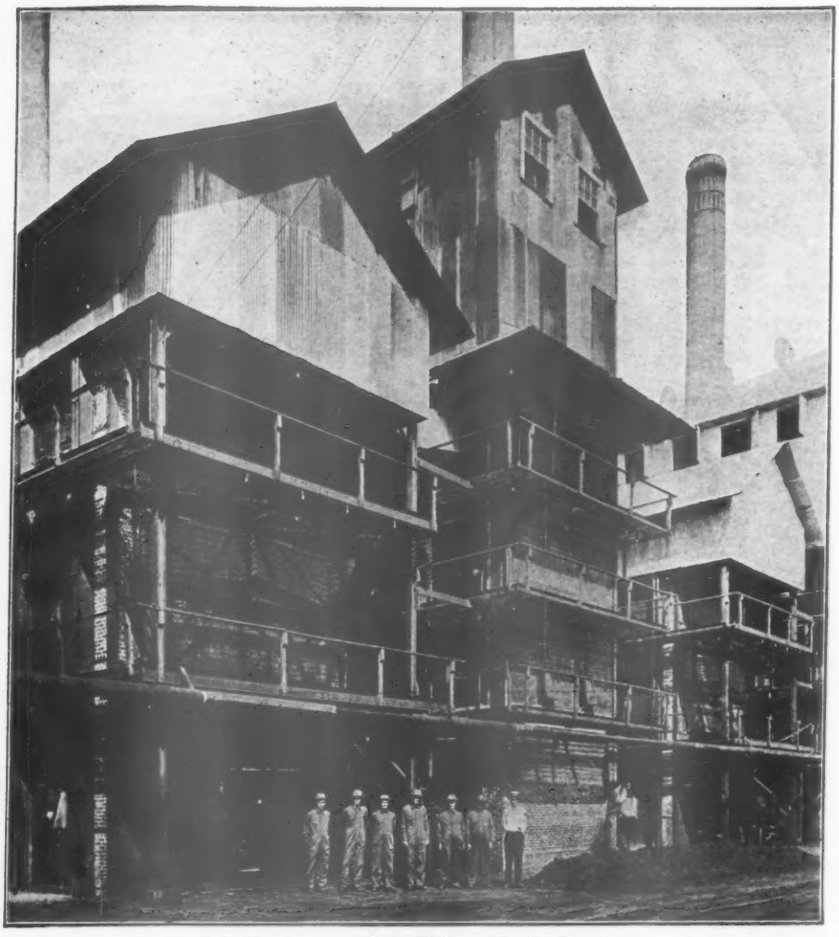
What the well-dressed Well will wear

THE BOVAIRD SUPPLY COMPANY

904 MID CONT. BLDG. TULSA, OKLAHOMA

FOR SALE BY ALL LEADING SUPPLY HOUSES

BOVAIRD



Unit No. 51, one of the Holmes-Manley Batteries
at the Port Arthur Works of The Texas Company.

This Battery recently established the following record for continuity of pressure stilling operation:—

Started Charging:	7 P. M. May 12, 1926
Fires Cut:	1 P. M. Aug. 18, 1926
Again in operation:	9 P. M. Aug. 19, 1926

98 days on stream charging 106,459 Barrels and back in operation after 32 hours shut-down for inspection and cleaning.

The Holmes-Manley *Cracking* Process

Operations in any cracking process must be free from interruptions and have few down periods to attain the greatest profits.
Uninterrupted operations over long periods of time are characteristic of the Holmes-Manley Process.

The Licensee receives:—

1. *A Proven Process*
2. *Complete Technical Service*
3. *The Benefit of Future Developments*

Licenses Granted by

THE TEXAS COMPANY, U. S. A.

Apply to

W. S. S. RODGERS
17 Battery Place, New York, N. Y.

Cause for *Action*

If you, or your men, have the time and money to worry, fuss and fret with balky pumps along with your other work, you are different than most people.

You can free yourself of this expense.

You know as well as we do that it is false economy to eternally tinker with your pumps.

The principal thing is to get the right pump for your conditions.

There is a difference in pumps. Some are made to do little else than sell. Others are the sum of much thought and experience, and are made to do their work well for years and years.

TRANSIT PUMPS are *finished* pumps from design to skids. For that reason they require the very minimum of attention, and are only subject to long deferred wear and tear.

After all, it's the repair bill that determines the cost.

NATIONAL TRANSIT
PUMP & MACHINE CO.
OIL CITY, PA.

NEW YORK PHILADELPHIA PITTSBURGH CLEVELAND
DENVER HOUSTON TULSA

OKLAHOMA GROSS PRODUCTION THIRD QUARTER INCREASES 1,396,567 BARRELS

Gross production of crude petroleum in Oklahoma for the third quarter of this year totaled 44,443,173 bbls., compared to 43,046,606 bbls. during the second quarter, according to reports filed with the state auditor for taxation purposes. The report follows:

A

Aaronson, C. T., Tulsa	1,411
Acme Dev. Co., St. Louis, Mo.	1,602
Acta Oil Co., Okmulgee	715
Ada Dev. Co.	5,253
Adams & McGahey, Ardmore	124
Adams & Prince, Ardmore	9,546
Adamson, M. E., Tulsa	11,980
Advance Co., The, Fort Worth, Tex.	247
Aggas, John, Morris	362
Aggas, W. A., Morris	265
Ajax Oil Co., Tulsa	162
Albion Oil Co., Tulsa	6,403
Alcorn, Glen, Tulsa	325
Aldrew Oil & Gas Co., Tulsa	1,929
Alexander, J. H., Tulsa	435
All American Oil & Gas Co., Oklahoma City	2,808
Allen, Sam T., Sapulpa	142
Allen Well Co., Ardmore	613
Allison, B. E., Tulsa	989
Almeda Oil Co., Tulsa	3,582
Alton Oil Co., Bartlesville	281
Amerada Petroleum Corp., Tulsa	1,393,999
American Cont. & Prod. Co., Bartlesville	129
American Eagle Oil Co., Bartlesville	4,788
American Oil Dev. Co., Pittsburgh, Pa.	10,305
American Oil & Gas Co., Bartlesville	4,430
American Pipeline Co., Wichita Falls, Tex.	12,662
American Royalty Pet. Co., Tulsa	514
Amos & Grindle, Dewey	1,079
Amster, N. L., Ardmore	17,842
Ancutt, G. C. and H. S. Swift, Tulsa	185
Andes Oil & Gas Co., Tulsa	224
Anolu Petroleum, Co., Blackwell	2,050
Arkansas Fuel Oil Co., Pittsburgh, Pa.	40,289
Arthur Oil Co., Sisterville, W. Va.	3,565
Ashland Oil Co., Tulsa	5,832
Associated Oil Producers, Chicago, Ill.	2,771
Atchison Oil & Gas Co., Atchison, Kans.	3,002
Atlantic Oil Producing Co., Dallas, Tex.	306,920
Aubyme Oil & Gas Co., Garber	3,014
Avery Oil & Gas Co., Tulsa	2,093
Avery, C. S. Special No. 1, Tulsa	205
Avery, C. S. Special No. 2, Tulsa	205
Avery, E. D., Tulsa	324
Aymer, Charles, Nowata	569

B

Babcock, E. A., Skiatook	411
Bagley Oil & Gas Co., Auburn, Neb.	2,962
Bailey, F. A., Cushing	176
Bailey, W. B., Bartlesville	466
Baker, Frank A., Tulsa	442
Baker & Strawn, Tulsa	13,257
Baltic Operating Co., Bartlesville	8,039
Bamm Oil Co., Tulsa	104
Barber Oil Co., Tulsa	293
Barnsdall Oil Co., Tulsa	824,162
Barr, W. E., Nowata	1,388
Barr Oil & Gas Co., The, Independence, Kans.	245
Bartlesville Oil & Imp. Co., Bartlesville	95
Bartlett, The D. A. Trust, Marietta, Ohio	218
Bauder & Franklin, Tulsa	404
Baum, Henry, Ardmore	470
Baxter, L. W., Tulsa	104
Baxter, L. W. Agt., Tulsa	188
Bay State Oil & Gas Co., Kansas City, Mo.	15,931
Bay State Oil & Gas Co., Kansas City, Mo., and The Paden Oil Co., Oklahoma City	5,469
Baynes, Pohn A., Exec., Mounds	196
B. B. & Waite Drilling Co., Bartlesville	63
Beacon Oil Co., Bartlesville	12,822
Beal, C. E., Sapulpa	198
Beams, Drew, Okmulgee	715
Beard, Earl, Bartlesville	3,925
Beard, J. G. et al, Duncan	5,108
Beattie, R. L. trustee, Bartlesville	44
Beau-Ard Oil Co., Ardmore	400
Bebout, W. M., Bartlesville	382
Beggs Oil & Gas Co., Okmulgee	7,094
Beknel Corp., The, New York, N. Y.	595
Bellis & Good, Cushing	1,665
Ben Franks Oil Co., Enid	624
Benage, F. L., Delaware	1,555
Bergen Oil & Gas Co., Tulsa	5,289
Berlin, R. L., Sedan, Kans.	347
Berry, George D., Coffeyville, Kans.	855
Berry Petroleum Co., Tulsa	27,504
Bertenshaw, H. G., Nowata	2,298
Best, Edward, Nowata	228
Betty G. Petroleum Co., Cement	1,019
Betty Ruth Oil Co., Broken Arrow	172
Bilbo, George W., Tr., United Eight Oil Trust, Madill	7,103
Billy Oil Co., Chelsea	195
Bingman Oil Co., Okmulgee	235
Bingman, W. B., Okmulgee	324
Bingman-Smith Oil Co., Okmulgee	3,246
Bird, J. W. and William Hanley, Bradford, Pa.	7,349
Bird, Gaffney & Simons, Bradford, Pa.	1,369
Bird Creek Oil Co., Tulsa	420
Bisett, Lytle & Gray, Tulsa	4,757
Bixler Oil Co., Bartlesville	665
B. Jack Oil Co., Sapulpa	458
Black, Sivalls & Bryson, Inc., Bartlesville	5,755
Blackstone Oil Co., Tulsa	2,698
Blackwell	145,964
Bloch Oil Co., Tulsa	922
Blum Oil Co., Nowata	50
Boggs Oil Corp., Oklahoma City	21,497
Ball, Cora G., Tr., Independence Kans.	659
Bole, George S., Tulsa	20,826
Boles, Neal & Perry, Cleveland	601
Bolivar Run Oil Co., Tulsa	1,074
Bonnell, John H., Los Angeles, Cal.	1,156
Boso, Fred M., Tulsa	2,242
Bovaird, W. M., Sapulpa	5,770
Bovaird & Irvine, Tulsa	211
Braden, C. E., Tulsa	192
Braden Co., The, Tulsa	3,356
Braden & McClure Oil Co., Eldorado, Kans.	134
Braden & Beren Oil Co., Eldorado, Kans.	2,093
Braden & Moore, Tulsa	9,792
Bradfield, C. H. receiver, Tulsa	5,749
Bradley, E. A. and Anna, Tulsa	2,494
Bradnorking Oil & Gas Co., Tulsa	1,127
Bradstreet, J. G., Muskogee	444
Bradstreet, J. G. & Co., Tulsa	1,104
Brady, E. H. (Tulsa), John Swanson, Est., Chanute, Kans., and Dan Kelly, Marietta, Ohio	1,951
Braman Oil Co., Inc., Tulsa	1,770
Brandes Oil Co., Nowata	76
Brann, James, Bartlesville	2,045
Brannon & Harmon, Nowata	930
Branstetter, Ray, Skiatook	431
Brazell, James, Oklahoma City	1,086
Breene, Frank M. et al., Tulsa	6,208
Breene, Frank M. Trust Est., Tulsa	14,496
Breene, Mabel V., Tulsa	91
Brewer, R. P., Tr., Tulsa	1,436
Bridgman Oil Co., Nowata	206
Bridgman, Welsh & Haner, Muskogee	517
Bright, Samuel, Okmulgee	817
Brittain, R. E., Oklahoma City	216
Britton-Johnson Oil Co., Tulsa	12,001
Brock, Charles N., Okmulgee	625
Brock, John L., Jr., Okmulgee	2,645
Brown, A. C. Oil Enterprise, St. Louis, Mo.	13,394
Brown, E. A., Greencastle, Ind.	310
Brown, J. H., Haskell	47
Brown, L. H., Karns City, Pa.	198
Brown, Guy Oil Co., Wichita Falls, Tex.	2,405
Brownlee & Martin, Tulsa	2,332
Bruner & Abbott, Tulsa	247
Bruner Oil Co., The, Independence, Kans.	245
Brundred Oil Corp., Oil City, Pa.	2,162
Bucher, P. O., Bartlesville	419
Buckles, C. O., Tulsa	1,582
Bull Head Oil Co., Ardmore	623
Burke, Charles F., Tulsa	344
Burke-Gibbs Oil Co., Tulsa	4,699
Burke & Greis, Tulsa	439
Burke-Greis Oil Co., Tulsa	64,430
Burke-Hoffeld Oil Co., Tulsa	11,261
Burlingame, C. E., Bartlesville	18,045
Burns, C. D., Preston	2,820
Bruns, Joe, Okmulgee	715
Bruns, Joe., receiver, Okmulgee	2,242
Burns, John R., Okmulgee	1,086
Burton, Dan A. and W. Dickinson, Tulsa	252
Buttram, Frank, Oklahoma City	311,670
Bu-Vi-Bar Petroleum Corp., Bristow	2,216
Byers, C. F., Sapulpa	208
Bynum, Maude A., Edith Parr, Irene G. Hilditch and Anna Bradley, Tulsa	883

C

Cala Belle Oil Co., Cement	784
Caldwell, Geneva S., Chelsea	410
Caldwell, James A., Tulsa	105
Caldwell, James A., Tulsa	417
Callahan, W. F., Sapulpa	296
Callahan Oil Co., Omaha, Neb.	503
Cameron Refining Co., Ardmore	79,835
Campbell, C. E., Okmulgee	902
Campbell, H. C., Nowata	761
Campbell, H. L., Tr., Nowata	496
Campbell & Byers, Cherryvale, Kans.	1,129
Campbell Oil Co., Tulsa	5,220
Canada Oil Co., Nowata	418
Canadian, U. S. Oil & Ref. Corp., (W. A. Mitchell, receiver), Bartlesville	946
Canary & Canary, Littleton, Colo.	3,224
Canary, J. D., Littleton, Colo.	3,600
Canary, S. C., Tulsa	7,811
Canfield, W. E. and G. W., Yale	526
Canterbury, S. L., Bristow	1,425
Carey Oil & Gas Co., Wellsville, N. Y.	356
Carlin, Maud, Haskell	155
Carlin, Opal, Haskell	155
Carlock & Dexter, Ardmore	3,320
Carner, Akin & Argue, Bartlesville	975
Carpathia Petroleum Co., Tulsa	26,124
Carpenter, L. A., Sapulpa	275
Carpenter & McClung, Sapulpa	575
Carr, M. L., Okmulgee	5,360
Carter Oil Co., The, Tulsa	1,837,051
Cassidy, Alice M., Guthrie	1,831
Cassidy, Kathryn, Guthrie	734
Central Commercial Oil Co., Tulsa	152
Central Petroleum Co., Tulsa	3,944
Central Pro. Co., Tulsa	208
Central States Oil & Gas Co., Tulsa	1,927
Chamberlain, Cecil C., Tulsa	402
Chamberlain, H. G., Marietta, Ohio	308
Champlin Refining Co., Enid	76,698
Champlin & Bass, Inc., Holdenville	2,565
Charon, Frank, Okmulgee	1,730
Chestnut & Smith Corp., Tulsa	3,341
Chic Osage Oil & Gas Co., Tulsa	196
Choctaw Oil Prod. Co., Tulsa	780
Clarion Oil Co., Houston, Tex.	6,247
Clarkson, P. J., receiver for Claude Bell, Ardmore	761
Clover, M. K., L. G. Neely, Est., St. Marys, Ohio	4,694
Cobb, Guy P., Ardmore	1,431
Cobb & Hollingsworth, Ardmore	2,003
Cobleigh & Shipman, Bartlesville	328
Cohen, Aaron, Baltimore, Md.	911
Cohn, Dave, Chelsea	549
Coline Oil Co., Oklahoma City	169,866
Collins, Ida M. & Ray M., Tulsa	469

EMCO METERS
for the gas industry

Here is an unretouched photograph of two heavy duty gas meters, measuring the gas requirements of the heating boilers in a Dallas, Texas, School Building.

PRODUCTS

EMCO Cast Iron Gas Meters, EMCO Large Capacity High Pressure Type Gas Meters, Wylie Proportional Meters, EMCO Curb Box Meters, EMCO Balanced Valve Regulators, Pressure and Volume Recording Gauges and Other Similar Equipment used in the Gas Industry.

Several advantageous features of Emco Meters are aptly illustrated. They do not require valuable inside space. They do not even require a shelter, as a coat of paint will furnish all the protection they require from the elements. They are so sturdy that no special connections or supports are required.

These meters can be read without entering the building. When the periodical checking is required, the entire measuring mechanism can be removed from the meter without removing the meter body from the line, or disturbing the connections in any way.

The outside installation removes a serious fire hazard and if the gases should leak, there is no danger of an explosion within the building.

The slightly higher first cost of Emco Meters is repaid through their long life, their accuracy, and their low cost of maintenance. There is no mystery in the reading of the meter, so that the customer never questions the gas company's figures as frequently happens with other types of meters. *Bulletins and prices will be sent promptly upon application.*

EQUITABLE METER AND MANUFACTURING COMPANY
PITTSBURGH, PENNA.
Warehouse stocks carried at Dallas, Texas; Tulsa, Oklahoma; Los Angeles, California

BRANCH OFFICES

L. C. Duncan
2003 Magnolia Bldg.,
Dallas, Texas

A. J. Kerr
834 Kennedy Bldg.,
Tulsa, Oklahoma

E. D. McDonald
427 Peoples Gas Building,
Chicago, Illinois

F. E. Newberry
426 Woodland Avenue,
Avon, New Jersey

PACIFIC COAST DISTRIBUTORS

F. C. Millard Engineering Co.,
Rives-Strong Building,
Los Angeles, California

Extra

The mile deep* hole is a problem in the effective use of power at a long distance.

The first essential is ample power. Next is controllable power.

Plan to bring in that next deep well with the new Ajax.

It has the power to handle a mile-long string of tools. You can use more effective gear ratios, handle the tools faster at slower engine speed.

This newest Ajax has the only counter balanced crankshaft on oil drilling engines. There is less vibration. The engine runs smoothly, resting without strain on its foundation.

5488 ft. well south of Syracuse, Kansas.

Made by

AJAX IRON WORKS
Corry, Pa.

DISTRIBUTED BY
THE NATIONAL SUPPLY COMPANIES

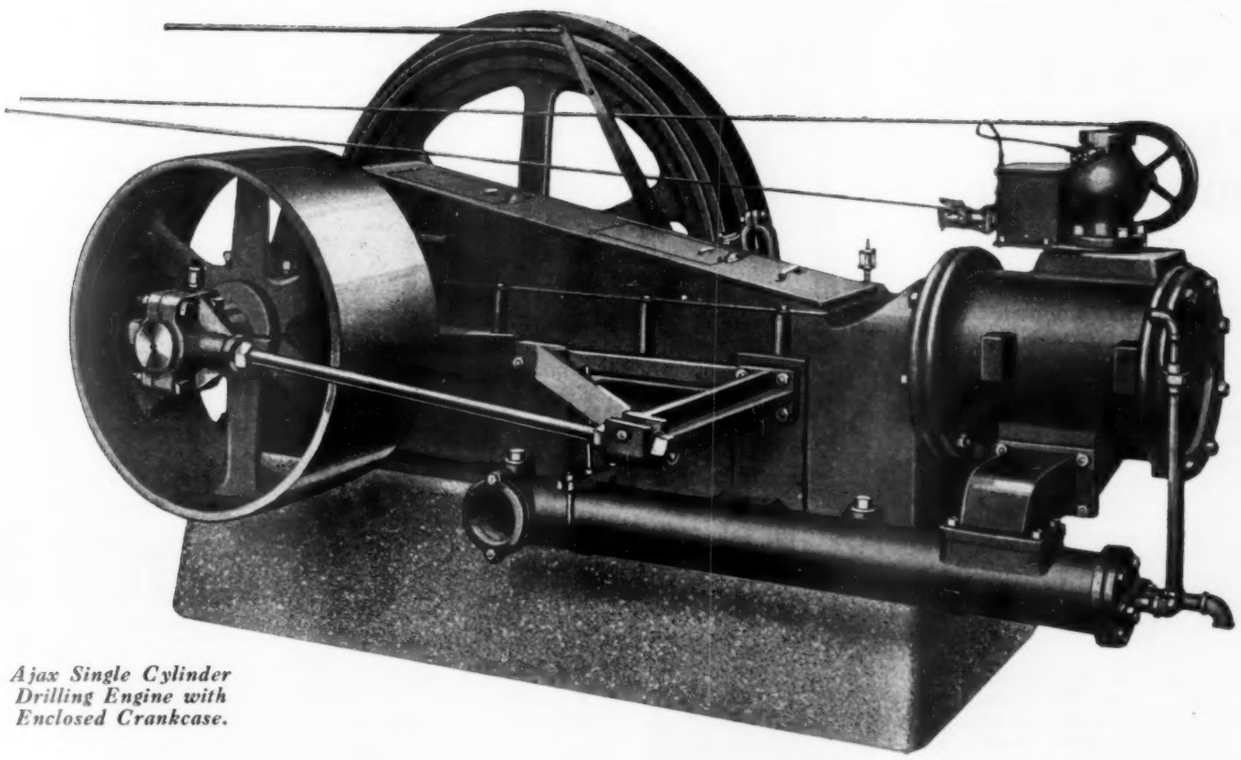
AJAX Snap Shots

Drilling crew on No. 17, North Fort Collins Field. Dan Wallace, driller; John Vicksburg, tool dresser; Pete Maxfield, tool pusher; Tiny Dixon, driller; George Nelson, tool dresser. Use 14 x 14 Ajax Engine.

AJAX DRILLING

Power

AJAX ENGINES



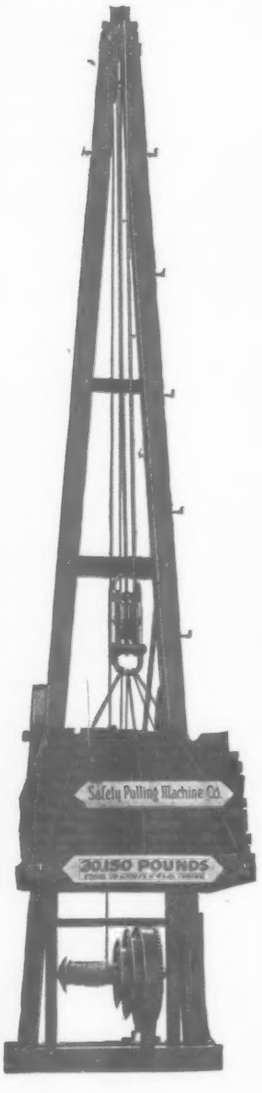
Ajax Single Cylinder Drilling Engine with Enclosed Crankcase.

STEAM ENGINES

Eclipse Deepwell Pulling Machine

ONE foreign company after seeing the machine in operation purchased six

—now we recently sent them ten more



Specifications Deepwell

Eclipse Deepwell up to 8000 ft. 2" Tubing, Weight.....3645

Mast 8x10x36 ft., Douglass Fir A-Style Two Wheel Truck, two 16" Bronze bearing crown pulleys, 2½ Steel Pin mounted in malleable boxings. Large supporting plate 16" dia. between crown pulleys, eliminating any chance of bending pin.

Reel or Drum; 32 lb. 8¼ casing filled with concrete for winding drum, differentials banded with 3/16 band iron, brake surface 6"x40", choke brake style same as Star drilling machine.

The whole reel assembly is mounted on 2¾ square steel shaft extending clear through reel, secured by three heavy castings.

For sale by all Supply Companies

Manufactured by

SAFETY PULLING MACHINE COMPANY
INDEPENDENCE, KANSAS

Collins Mtg. Co., Kansas City, Mo. 30
Collis Oil Co., Tulsa 2,750
Colton, Marguerite, Okmulgee 1,400
Comar Oil Co., St. Louis, Mo. 3,267,195
Commercial Drilling Co., Tulsa 6,100
Commonwealth Oil Co., Warren, Pa. 881
Compton, O. W. et al, Independence, Kans. 314
Connelly, E. L., Tulsa 128
Connelly, E. L. et al, Tulsa 3,427
Connelly, G. W., Caney, Kans. 1,962
Conner, W. E., Gotebo 3,009
Constantine, C., Pawhuska 643
Continental Oil Co., Denver, Colo. 148,494
Continental Oil Co., Tulsa 7,814
Continental Oil Co. of Texas, Wichita Falls, Tex. 243
Continental Oil & Ref. Co., Independence, Kans. 10,486
Continental Supply Co., The, St. Louis, Mo. 1,319
Coombs Oil, Gas & Land Co., Bartlesville 845
Cora Exploration Co., St. Louis, Mo. 726
Corona Oil Co., (N. T. Gilbert and Joseph Glass, receivers), Tulsa 1,570
Coronado Oil & Gas Co., Cleveland, 2,958
Correne Oil Co., Tulsa 1,070
Cory, M. S., Tr., Tulsa 843
Cortez Oil Co., Tulsa 24,395
Cosden Oil & Gas Co., Tulsa 104,222
Cosden, J. S., Tulsa 7,137
Cotton Belt Petroleum Co. (N. T. Gilbert, receiver), Tulsa 26,435
Crawford, J. W. R. & Sons, Inc., Tulsa 264
Creekmore, C. B., Tulsa 606
Cremsl Oil Co., Bartlesville 131
Creo Oil Co., Tulsa 10,798
Crescent Oil Co., Bartlesville 723
Crews Estate Oil & Gas Prod., Enid 14,288
Crosbie, Davis, Sloan & Sturm, Tulsa 1,685
Crosbie & Gillespie Gasoline Plant, Tulsa 3,934
Crosbie, Sturm & Davis, Tulsa 2,962
Crosby Drilling Co., Olean, N. Y. 99
Crown Central Petroleum Co., Houston, Tex. 8,915
Cruce & Potter, Ardmore 1,054
Cruce-Smith-Cruce, Ardmore 1,969
Crude Oil Dev. Corp., Blackwell 1,204
Crump & Beard, Duncan 32,395
Cudahy Oil Co., The, Cleveland, Ohio 22,822
Cumberland Petroleum Co., Cleveland, Ohio 21,045
Curtis, W. L. Co., Elmira, N. Y. 118
Curtis, W. L. Co., F. M. Aiken, Inc., Elmira, N. Y. 1,352
Cusack, F. E., Okmulgee 1,743
Cushing Gasoline Co., Tulsa 2,559
Custer Oil Co., Okmulgee 832

D

Daisy Belle Petroleum Co., Ardmore 8,053
Dallas Co., The, Tulsa 3,896
Damme-Pringle Oil & Gas Co., Tulsa 645
Damon Oil Co., Tulsa 1,929
Dana Oil Co., Bartlesville 735
Danciger Oil & Refining Co., Tulsa 666
Darby Petroleum Corp. of New York, Tulsa 2,798
Darby-Lynde Co., The, Tulsa 2,742
Davis, Joseph D., Tulsa 157
Davis, L. R., Tulsa 1,354
Davis, R. D., Cleveland 379
Davis, W. R., Caney, Kans. 212
D. C. F. S. & Co., Ardmore 889
Dean, John Est., Guthrie 1,008
Deems, H. C., Tulsa 4,248
Deems, R. G., Tulsa 242
Deep Fork Oil Co., Marietta, Ohio 2,038
Deep Rock Oil & Ref. Co., Tulsa 101,661
Delaware-Cherokee Oil Co., Dewey 2,603
Delaware Consolidated Oil Co., Tulsa 16,870
Delmar Oil Co., Bartlesville 102,130
Denver Prod. & Ref. Co., Okmulgee 4,979
De Vinna, M. A., Tulsa 507
De Soto Gasoline Co., Houston, Tex. 1,536
Devonian Oil Co., Tulsa 171,977
Dewey Portland Cement Co., Dewey 1,088
Diamond, Harry H. Oil Co., Holdenville 1,720
Dierks, Fred H., Tr., Kansas City, Mo. 1,806
Dixie Oil Co., Cement 1,583
Dixie Oil Co., Inc., Shreveport, La. 462,637
Dixon, H. O., Bartlesville 3,319
Doak, James, Cushing 203
Dobbins, C. W., Ardmore 707
Dock Oil & Gas Co., Bartlesville 566
Dodd, William A., Tulsa 272
Dolman, L. S., N. B. Feagin & W. H. Gant & S. W. Tyer, Ardmore 7,101
Dominion Oil Co., Washington, D. C. 261
Donahoe, J. J., Ponca City 296
Donahoe J. J., Tr., Ponca City 592
Donahoe, J. L. Tulsa 434
Donahoe, Mabel, Ponca City 296
Doris Oil & Gas Co., Tulsa 920
Dorn, K., C., Tulsa 272
Douglass, Harvey, Atty., Chelsea 286
Douglass Oil Co., Tulsa 8,105
Dover Oil Co., Bartlesville 663
D. & S. Oil & Gas Co., Tulsa 1,003
Ducombe, C. I., Sand Springs 91
Duffield, Berlin & Moore, Tulsa 552
Duffield & Howard Oil Co., Tulsa 3,758
Duffield, Lewis C., Tulsa 1,227
Duffield, L. C. & Co., Tulsa 2,987
Dunn Oil Co., Tulsa 206
Dunn, S. J., Tulsa 145
Dunnington, A. S., Tulsa 507
Dwyer, J. D., Tulsa 3,072

E

Eagle-Picher Lead Co., The, Henryetta 1,898
Earl Oil Co. (Tim Cushing, Agt.), Bristow 618
Eason, T. T., Enid 3,168
Ebling, L. R. & Co., Bartlesville 1,443
Echo Oil Co., Tulsa 24,830
Edgington, L. D., Hominy 295
Eliza Tim Oil Co., Sapulpa 215
Elk Oil Prod. Co., Tulsa 871
Ellen Oil & Gas Co., Tulsa 975
Elliott & Smith, Tulsa 24,409
Elliott & Vensel, Tulsa 8,360
Elliott, W. C., Tulsa 288
Ellis, M., Tulsa 5,336
Elm Oil Co., Tulsa 18,492
Elson, W. H., Tulsa 1,984
Emery, Lewis Jr. & Sons, Bradford, Pa. 9,317
Emery Bros., Bradford, Pa. 2,718
Empire City Co., Tulsa 1,654
Empire Gas & Fuel Co., Bartlesville 192,192
Enfisco Oil Corp., Tulsa 12,068
Enid 80 Oil & Gas Co., Enid 375
Enterprise Transit Co., Titusville, Pa. 3,961
Eysenbach, O. K., Tulsa 1,528

F

Faltinson, A., Tulsa 4,482
Fan-Elva Oil & Gas Co., Tulsa 2,128
Farmer, A. L. and A. E. Duran, Tulsa 128
Farren, C. F. Est., Tulsa 1,958
Faucett, J. E., Dallas, Tex. 410
Fay Drilling Co., Tulsa 107
Fee Oil Co., Muskogee 62
Fell, J., Tulsa 532
Fellows, Ray S., Tulsa 3,950
Fern Oil & Gas Co., Yale 11,912
Fewel, Green A., Muskogee 131
Fidelity Oil Corp., Louisville, Ky. 664
Fifty-Nine Osage Oil Co., Bartlesville 40,732
Finance Oil Co., Gowanda, N. Y. 21,661
Finance Oil Co. and Livingston Oil Co., Gowanda, N. Y. 1,014
Fisher Oil Co., The, Pittsburgh, Pa. 343
Fitzgerald, D. C., Tr., Ardmore 8,479
Fitzgerald, H. L., Tulsa 51
Fitzgerald, John W., Bartlesville 302
Fitzgerald & Withington, Ardmore 1,085
Fitzpatrick, Essie, Guthrie 734
Flanagan, J. P., Tulsa 3,925
Flanagan & McGrath, Nowata 166
Flat Rock Oil Co., Tulsa 1,357
Fleming & Bedford, Chelsea 139
Flora-Okla. Oil Co., Cement 5,557
Flynn, Olney F., Tulsa 1,175
Foltz, John M., Tulsa 887
Force Oil Co., The, Tulsa 824
Forster, S. F., Dallas, Tex. 874
Fort Ring Oil & Gas Co., Ft. Worth 4,686
45 Oil Co., The, Chicago, Ill. 1,859
45 Oil Co., The, and E. S. Bell, Chicago, Ill. 4,853
Foster Oil Co., Tulsa 49,519
Foster Petroleum Corp., Bartlesville 55,673
Foster Petroleum Corp. and Charles F. Leech, Bartlesville 417
Foster & Davis, Inc., Bartlesville 11,298
Fox, W. T., Sapulpa 4,322
Fox Petroleum Co., Ardmore 6,298
Franchot, D. W. & Co., Tulsa 107,105
Francis, William C., Skiatook 162
Franklin Oil Co., Franklin, Pa. 399
Franklin, Wirt, Ardmore 120,029
Franklin Oil & Dev. Co., Nowata 479
Future Dev. Co., Okmulgee 208

G

Gaffney, H. E., Est. and H. B., Bradford, Pa. 1,634
Gaffney, H. E., Est. and Olive, Bradford, Pa. 811
Galbraith, H. H. et al, Independence, Kans. 1,442
Galvez Oil Corp., Tulsa 17,069
Gambill, G. W., Terre Haute, Ind. 1,840
Gant, W. H., Ardmore 7,935
Gardner, H. N., Tulsa 755
Gardner, J. K., Okmulgee 1,544
Gardner Oil Co., Tulsa 47
Gardner Petroleum Co., Tulsa 123,262
Gardner & Avery, Tulsa 297
Garland, R. F., Tulsa 231,114
Garnet Oil Co., Winfield, Kans. 3,351
Garvin Drilling Co., Duncan 7,080
Gates Oil Co., Denver, Colo. 559
Gates Oil Co., Ardmore 28,456
Gates-Cook Drilling Co., Okmulgee 1,050
Geneva Pearl Oil & Gas Co., Ardmore 2,794
Genevra Oil Co., Bartlesville 650
Georgia Oil & Gas Co., Copan 2,965
Getty, George F., Tulsa 650
Gibson-Zahniser Oil Corp., Tulsa 2,664
Giddings, P. C., A. B. C. Dague, Tulsa, and Charles F. Egan, Denver, Colo. 835
Gilbert, N. T., Gen. Agt. and Mgr. for Joseph P. Tumulty and Joseph Glass, receivers, Tulsa 8,686
Gilchrist, Dessie, Bartlesville 790
Gilcrease, Thomas, Tulsa 4,542
Gilcrease Oil Co., Tulsa 23,945
Gillespie, F. A., & Sons Co., Tulsa 41,156
Gillette, J. M., Tulsa 560
Gilliland Oil Co., Tulsa 71,771
Gilmer Oil Co., The, Ardmore 49,897
Gilmer Oil Co., Lamine, Mo. 50
Godfred, F. L., Enid 757
Goldelline Oil Corp., Oklahoma City 374
Goldie Oil & Gas Co., Kansas City, Mo. 789
Gordon, Mary Louise, Los Angeles, Calif. 1,936
Gorman, M., Tr., Ardmore 453
Gorton Trust, The, Cement 13,282
Gladys Belle Oil Co., Tulsa 32,336
Glass, J. Wood, Nowata 572
Glass & Harmon, Nowata 12,221
Glass-Reed-McSpadden, Nowata 187
Glass & Weaver, Nowata 208
Gled Oil Co., Tulsa 32,744
Glidden, H. P., Tulsa 345
Glidden Oil Corp., Tulsa 2,585
Graham, James H., Bartlesville 12,466
Graham, Mineral Trust, Ardmore 2,754
Grand Duke Prod. Co., Muskogee 435
Gray, Earl Q., Ardmore 920
Greenfield Trust, The, Rock Island, Ill. 961
Greenwalt, H. L., Okmulgee 340
Gregg, C. O., Ardmore 4,515
Grieves, John B., Terlton 15,042
Griffin Prod. Co., The, Tulsa 2,898
Grimes, W. Baker, Tulsa 236
Grimes & Gillespie, Tulsa 23,855
Gypsy Oil Co., Tulsa 2,214,705

H

Halden Oil Co., Tulsa 550
Hales, W. T., Oklahoma City 121,535
Hall, John M., Tulsa 52
Halsell & Son Oil & Gas Co., Vinita 1,812
Hambro Oil Co., St. Louis, Mo. 7,817
Hamill, A. W., Tulsa 340

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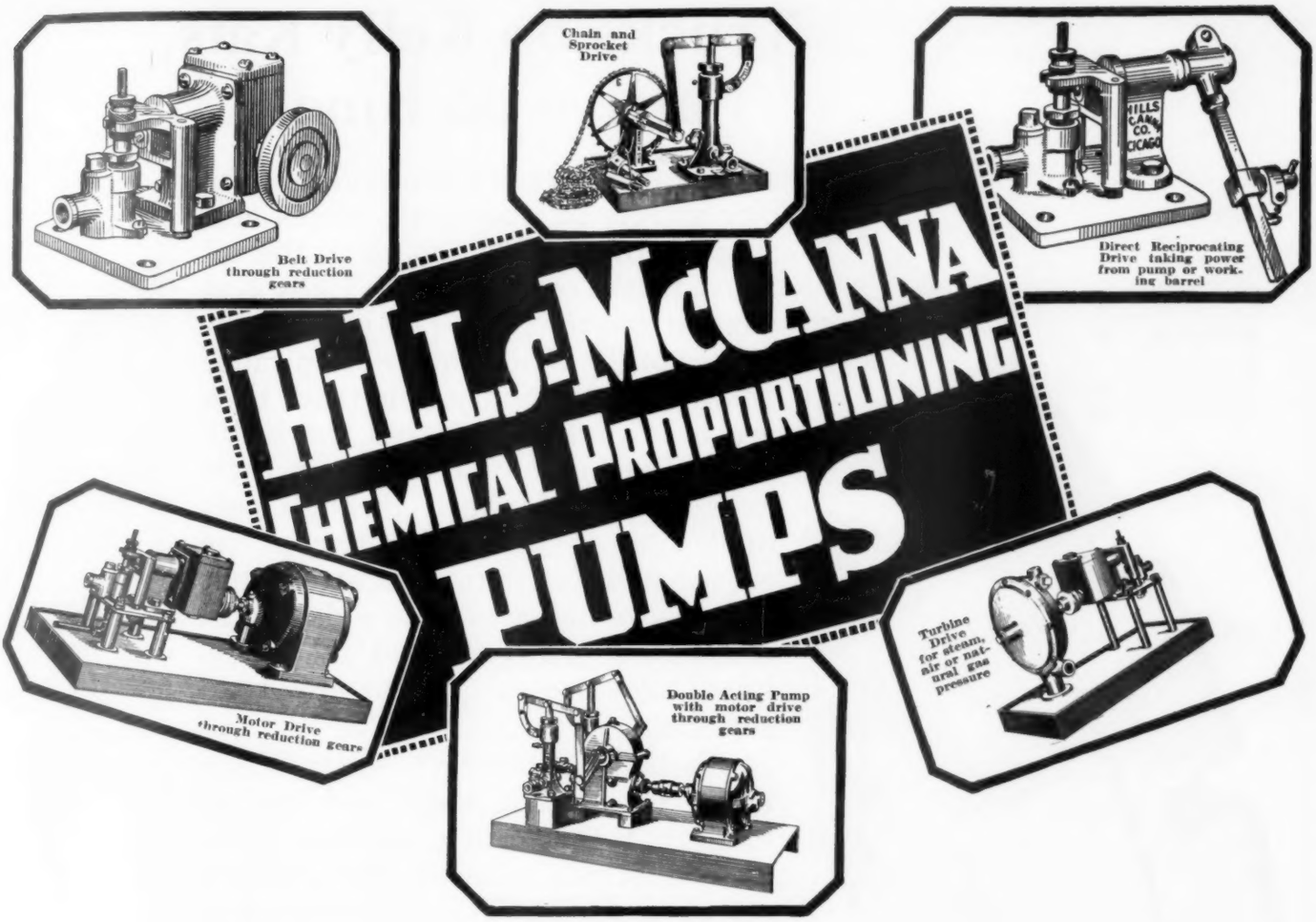
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The single plunger principle with packed stuffing box and ball valves offers accuracy and sureness that is absolute, its metering efficiency being known ever since machinery has been contrived.

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Whether carrying gas and oil over city streets or delivering stores and supplies over muddy roads in the oil fields, trucks equipped with Kelly Kat tires arrive on time. The many difficulties of the road that so often cause delays when ordinary solid truck tires are used, hold no terrors for Kelly Kats. They take hold and push their load steadily forward through soft mud, snow or slush just as long as the engine will function. No matter what the road conditions, the side vents, originated and perfected by Kelly, give these tires a grip on any road surface.

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Distributors as well as producers have found that Kelly Kats are economical tires to use. Whether driven over city pavements or rough, muddy roads Kellys will carry their load forward at a cost per mile that is surprisingly low to operators who have been used to the cost of running trucks on ordinary solid tires.

KELLY TRADE MARK REG KATS
THE TIRES WITH NINE LIVES

CANADIAN FIELDS

(Continued from Page 60)

but this was ultimately done after several months' work. A string of 4½-inch casing will be run to the top of the limestone and the diamond drill then substituted for the cable tool outfit which has carried the hole to the present depth. The diamond drill outfit is expected to start work in about a month.

Dolomite Oils, LSD 8, Section 1-20-3w5, is reported at 600 feet and drilling. Calmont Oils, LSD 2, Section 1-20-3w5, has finished running the 12½-inch casand resumed drilling at 2,210 feet. Cooper-Nanton Oil Co., LSD 2, Section 7-20-2w5, is pulling the 15-inch casing for salvage and will carry on with the 10½-inch and 8¼-inch in the hole. Drilling will resume at 4,010 feet.

Seneca Oils, LSD 1, Section 34-20-3w5, is at 2,115 feet and just above the Dakotas, with a slight showing of oil and gas. Highland Oils, LSD 5, Section 5-20-2w5, has run the 10-inch casing to 2,500 feet and is drilling and underreaming to carry the string down an additional 500 feet.

Vulcan Oils, LSD 11, Section 13-20-3w5, has put on a new cable and resumed drilling in a softer formation at 4,996 feet. McLeod Oil Co. No. 2, LSD 16, Section 1-20-3w5, has finished rigging up for fishing for a lost bit.

Big Chief Oil Co., Section 5-20-2w5, is at 3,455 feet and running casing. British Dominion, LSD 4, Section 5-20-2w5, is at 3,150 feet and drilling. New Black Diamond, LSD 1, Section 3-20-3w5, is at 1,500 feet and temporarily shut down. New Valley Oils, LSD 4, Section 6-21-2w5, is at 1,550 feet and drilling.

Queen City Oil Co., which has considerable production in the Montana fields, is definitely arranging to drill a test in the Turner Valley next spring, a location having been made in LSD 6, Section 34-20-3w5.

Ribstone-Blackfoot

On the Ribstone-Blackfoot structure, east of Edmonton, Imperial Oil, Ltd., Ribstone No. 1, Section 5-45-1w4, which got an oil sand at 1,880 feet, has finished coring at 1,900 feet, 4 feet below the bottom of the sand. The cores show the sand to be 16 feet thick, and are heavily saturated with a brown oil. The 10½-inch casing is being run and will be cemented on the top of the sand, after which the sand will be drilled through with the rotary outfit, for a production test. The test may develop a flowing well, failing which it will be put on the pump.

In the same field, Advance Oil Co. No. 3, LSD 1, Section 16-45-1w4, is at 350 feet and drilling. Ribstone Oils, LSD 1, Section 1-46-1w4, is drilling at 380 feet.

Irma-Wainwright

In the Irma-Wainwright Field, Wainwright-Dome Oil Co., LSD 7, Section 31-45-6w4, is at 2,130 feet and has commenced coring. Interior Oil Co, Section 36-44-7w4, has encountered a fair show of oil in a black shale. The test is underreaming, and running double tour. Emerald Oils, LSD 8, Section 30-45-6w4, is at 2,400 feet and shut down. Edmonton-Wainwright Oils, LSD 4, Section 29-45-6w4, is pumping and shipping to the refinery at Edmonton. Wainwright Gas Co., which has practically completed its pipeline and distribution, is finishing its regular stations and connecting the line with the Maple Leaf Oil & Gas Co. producer, Section 19-45-8w4, in the Wainwright Field. Gas will be delivered to Wainwright about November 21. A gas line is being laid to the Kling-Del refinery now under construction at Wainwright.

Border Fields

In the Border fields, Imperial Oil, Ltd., Burdett No. 1, Section 8-11-11w4, which got an oil showing in the Kootenay sand at 2,912 feet, is preparing to cement the 10-inch casing in the top of the sand. Quick-set cement is being used, and when this sets the well will be bailed and drilled into the sand, and a capacity test made. Coring was carried 10 feet without fully penetrating the sand. Unofficial estimates give the well a potential production of 500 bbls. a day, but this is based merely on examination of the cores.

Eight miles south of Skiff, Devenish Petroleums, LSD 5, Section 27-5-14w4, is setting 10-inch casing at 2,000 feet. No further water has been met since the 30,000-bbl. artesian flow was shut off last month. The first gas sand is expected around 2,100 feet. The nearest production is in the Foremost Field, 21 miles east. It is planned to carry the test below the gas sands for oil.

East of Coutts. Imperial Oil, Ltd., Erickson-Coulee No. 1, LSD 13, Section 8-1-12w4, is drilling below 2,455 feet. On the Quarantine Reserve close to Coutts, Urban Oils, Section 4-1-15w4, is reported fishing at 3,196 feet. The fishing cable has been recovered but the bit is still in the hole. Southeast of Lethbridge and in the Pincher Creek district, the Senator Michener Syndicate of Red Deer, Alta, has filed on additional territory.

On the Montana side, south of the Rogers-Imperial gasser, the Red Top Oil & Gas Co., Section 23-36-3e, is reported to have got a flow of wet gas with a little oil in the first Colorado sand at 720 feet. The showing has been cased off and the test is now drilling below 1,000 feet. Close to Sweetgrass, Hart Green No. 1, drilled by a Winnipeg syndicate, after drilling over 1,000 feet of open hole without encountering water, has set casing at 1,000 feet and is now reported drilling below 1,250 feet. A test by Rose Oil Co. in the Silsen district of southern Montana, is reported dry at 2,035 feet. Aerolite No. 2, SW NW Section 25-24e, got production at 1,385 feet and is reported flowing 250 bbls. a day.

Medicine Hat

In the Redcliffe Field, Medicine Hat district, Roth Syndicate's No. 2 deep test, Section 17-13-6w4, has resumed drilling around 1,100 feet, after running casing.

In the Morley Reserve district, the Chiniki Holding Co. has secured 1,300 acres of the Cobb & Warren leases, and is organizing a company to develop its acreage. The acreage is less than a mile north of the Wabash Oils location, and near Ozada siding.

In the southern foothills, Imperial Oil, Ltd., Bow Rover No. 1, LSD 15, Section 12-25-5w5, in the Jumping Pound district, west of Calgary, is reported working on casing at 4,510 feet. In the Highwood district, Imperial-Highwood No. 1, LSD 3, Section 36-18-3w5, is at 885 feet and working on casing. In the Willow Creek Field, west of Nanton, Imperial-Rice Creek No. 1 is at 5,743 feet and drilling. This is now the deepest well in Canada.

In the Rickert area of the Bow River forest reserve, Paramount Oils is working on cellar in LSD 2, Section 29-19-4w5. A deep test will be drilled, the structure being regarded as very similar to the Turner Valley.

In the Lesser Slave Lake area, northern Alberta, International Oils, Inc., Section 14-74-4w5, is reported down 1,300 feet and drilling in the Gand Rapids formation.

In the Ontario fields, Union Natural Gas Co. has finished a small gasser on the Truckenbrod farm near Port Alma, in the southern part of the Tilbury Field. The rig is being moved further east for a new test. Owing to bad roads, Union Natural Gas Co. No. 13 test in Dawn Township, Lambton County, is at a standstill.

Oil Field Townsite

Following recent developments in the Turner Valley Field, southwest of Calgary, the townsite of a new oil field metropolis has been laid out. The name of Turner Valley has been formally sanctioned by the Alberta Public Utilities Commission, which has approved the plans and blue prints.

The townsite, covering an area of about five acres, will be bounded on the south by the McLeod Oil Co. lease, on the east by the Royalite Oil Co. property, on the west by Hubert Avenue and on the north by Edgar Street. Lots have been sold as high as $500, this, of course, carrying only the surface rights.

Like the Ontario oil town of Petrolia

(Continued on Page 95)

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breaking and reforming,
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NATURAL GASOLINE, 150,000 gallons per day, from 24 plants throughout Oklahoma, Texas, Louisiana and Arkansas available over 1927.

AMARILLO, TEXAS CRUDE OIL FOR SALE, OVER SIX MONTHS, LOADED AT OUR ISOM RACK.

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OIL AND GAS COMPANY

TULSA · OKLAHOMA

TAX ADMINISTRATORS OF GASOLINE ORGANIZE

(Continued from Page 40)

just to hear speeches but to sit in round table conferences and exchange views. Here we propose to really study these matters and try to find the best solutions. Without attempting to go into any of the details let me enumerate two or three reasons why you men have come so far to get together in order to confer about these matters. Transportation is undoubtedly the all-inclusive reason for the whole business."

Taxation for highway construction, charged against land or personal property, is resisted, he pointed out, while the automobile owner views the charge differently.

"He pays the tax on his automobile," Mr. McAtee continued, "and upon his gasoline, without objection, at least until a portion of his tax money is appropriated to take care of general governmental expense, school expenses and other expenses which have been borne by the land and chattel owner. This calls for an increase of the rate levied upon his car and his gasoline beyond that rate which was necessary to build and maintain the highways. To this he objects. He also objects to taxes being refunded to certain consumers of gasoline whom he believes are as much interested and receive as great benefits from the highways as himself.

"He is particular about how this important matter is handled by the state. He does not believe that the state has a right to handle it in a careless way or by the use of cumberous and inefficient methods; he thinks that all of the taxes paid by him to the oil dealer should be found out and collected by the state, and that the state is obliged not only to spend all of it in the construction and maintenance of highways but that it shall be judiciously spent and that the machinery of construction and maintenance of highways shall be honestly and efficiently operated."

Chairman McAtee urged that the aim and purpose of the conference primarily should be "to consider experience and try to arrive at the wisest and best conclusions possible." "Let us bear in mind our responsibility to the public and to the petroleum industry alike," he asserted. "Let us not be unmindful of the fact that the public's interest is best served when honest industry is legitimately encouraged."

The first general session was devoted to the subject of "Inspection," being opened with a paper by James Duce, State Inspector of Oils, Colorado, followed by addresses by W. J. Armstrong, State Inspector of Oils, Oklahoma, on "State Interest in Petroleum Industry;" A. J. Kraemer, Bureau of Mines and Federal Specifications Board, Washington, D. C., whose paper, "The Meaning of Specifications for Gasoline and Kerosene," was read in his absence, and "Gasoline Specifications in Relation to Methods of Refining and Treating," by Dr. Roy Cross of Kansas City.

Doctor Cross concluded his discussion by making the following recommendations relative to gasoline specifications:

1. The gasoline should be noninjurious or nonpoisonous in so far as its practical use is concerned, and certainly should not contain any unnecessary poisonous substances.

2. Physical properties should be essentially as set forth by the present specifications for U. S. Motor gasoline, possibly with the elimination of 90 per cent temperature.

3. Chemical properties should require a product free from acidity or corresive action and have a sulphur content of not more than 0.15 per cent.

4. The quality of the gasoline should not be misrepresented and the tests covering its chemical and physical properties should be correctly disclosed to the purchaser.

The second general session held Tuesday morning was devoted to the general subject of oil taxation, being treated severally from the viewpoints of the tax gatherer, the tax law maker and the distributor.

Opening the discussions, Edward Martin, Auditor General of Pennsylvania, presented an analysis of "A Model Gasoline Tax Law" through Charles A. Waters, his assistant.

Nebraska Law

Nebraska's gasoline tax law, effective since April, 1925, has collected $4,500,000 at an administration cost of 23/100 of 1 per cent, the conference was told by T. W. Bass, Chief, Gasoline Tax Division, Nebraska, in a discussion on "Securing Compliance." The Nebraska law, he related, provides for a refund for "agricultural purposes," under which classification $22,000 has been refunded. Even this preferential class will be eliminated at the next Legislature, if recommendations are followed, he said.

"Our farmers are willing," he said, "to understand that the railroads, the dry cleaners and the stationary engineers are ready to ask for similar refunds at the hands of the Legislature. In our state we collect direct from about 600 licensed importers, which includes, broadly, sellers and users and distributors and cities, towns and counties. Our success has been founded on our close contact with all these."

Future Development

Discussing "Future Development of the Gasoline Tax," Solomon Levitan, State Treasurer of Wisconsin, presented some interesting figures and calculations. He predicted the gas tax will take the place of all other forms of motor taxation, in a few years carrying all the burden of highway maintenance and improvement. He urged the gas tax as not only the fairest of taxes, but the easiest and most economical to administer, citing figures to show that Wisconsin collected $5,036,053 at a cost of $9,646 in the first year of the gas tax law, but contrasting it with $8,933,098 collected in motor license fees, which cost $550,800 to collect.

"It is very simple to see," he observed, "that if we would raise our gas tax a little, we could collect the total amount necessary to pay our highway bills, and the cost of collecting would not reach $15,000. We could easily save a half million yearly, which we now put out in expense for collecting motor licenses. Wisconsin has a gas tax of only 2 cents per gallon. Suppose we were to raise this to 5 cents a gallon. On the basis of the number of gallons sold in this state during the first fiscal year the tax operated, it would bring us $12,500,000."

Mr. Levitan further set forth arguments for the reduction of the license tax to a nominal registration tax, but his suggestion for a raise of the gas tax to higher ratage was challenged by the succeeding speakers.

Against Higher Tax

The first warning against excessive taxation was sounded by indirection in the succeeding address by W. S. Booton, Director Excise Tax, Tennessee, who spoke on the Administration of Gasoline Tax Laws. He cited instances of legislative inclination toward gas taxation, and comparable disinclination toward inspection.

"Much has been written," he said, "and a whole lot said about a uniform gasoline tax law, a uniform tax inspection law, and a uniform definition of gasoline. The advantages of uniform laws, in general, have been persistently and elaborately set before us for the last several years. And, we will freely admit, this country is irresistably heading toward one or the other of two goals. There will be more and more supersession of state functions through assumption of Federal authority, or, we are going to have more and more of unanimity of state legislation."

Continuing, he asserted: "It is up to us to retain the co-operation of gasoline producers and distributors until the great desideratum is attained. The oil people are doing their full share, and without direct compensation. Whether this is a sign of—shall we say—progress, or whether it merely means the oil folks were just as much surprised as the politicians at the phenomenon, a popular tax, is for the people to decide. Personally, we believe it is progress.

"The strength of the oil jobber is expressed by a multitude of organizations over the country. Our oil folk measure up to, or overtop, the leaders in any other line of endeavor. The producing and refining units of the oil game have live men at the wheel . . . We cannot blame the oil folk for being gun-shy. But if civilization, as expressed in politics, keeps its present level, or rises higher, it is improbable that either gasoline tax rates, rules or regulations will disrupt our comparatively peaceful and happy situation enabling us to state the gasoline tax is an honestly popular tax and capable of identification as such."

Standard Views

The suggestion of a 5-cent tax was directly challenged by Frank L. Packard, tax attorney, of the Standard Oil Co. of Indiana, in his preliminary remarks to his discussion of "The Gasoline Tax Laws From the Distributors' Viewpoint." He reminded that "when a citizen of a state is made not only an involuntary tax collector, but a revenue insurer as well, he ought to be entitled, in all fairness, to a workable and equitable law under which to operate."

He urged that the workable sales tax law should so define gasoline as to exclude, or include definitely, cleaners' naphtha, and like products; that the tax should be levied upon receipts—that is, an excise upon the storing or transporting of gasoline within the state, and, a sales tax on the first sale or use within the state; that the distributor, as distinguished from the retailer, should be charged with the responsibility of collecting the tax; that a careful check should be made by the state against the reports of the oil inspector (to check bootlegging); further guarantees of payment to the state of taxes collected by the distributor; expedited refunds to consumers, and excessive caution in shrinkage allowances.

On tax rates Mr. Packard declared: "This question has been ably discussed in this conference and I will not consume time other than to point out that the economic law of diminishing consumption with advancing price, must at some time under increasing tax rate, become effective.

"Simply because the law is not operating everywhere at the present time, due no doubt to the fact that the saturation point for automobiles has not yet been reached, or owing to poor roads and various other causes, it does not follow that it will not become operative and result in injury to the oil industry and the consequent loss of revenue to the state. Also the other economic fact that an unjustly high tax results eventually in loss of revenue, and that an inequitable tax law is always repealed. It is my own candid opinion that except in some economically backward states, a 2-cent tax will yield all the revenue that a state can apply economically to road construction and maintenance in any given year."

Concluding the session, James N. Potter, Assistant Attorney General of Missouri, speaking for Attorney General North T. Gentry on "Constitutional Phases of the Gasoline Tax Law," delivered a more pointed warning against excessive taxation.

He reminded his hearers that most of the state gasoline tax laws were enacted from the years 1916 to 1923, prior to the first interpretation by the Supreme Court of the United States as to their validity; that such interpretation, as affecting interstate commerce, had still not been handed down; that each of the state laws must still hold water within their own several constitutions, and that states have had a tendency to "copy" early laws simply because they were in operation. In warning against "excessive taxation," he argued that laws to be "legal" must be "reasonable" and that what is "reasonable" today may be "unreasonable" tomorrow.

GAS LIFT REDUCES PARAFFIN TROUBLE

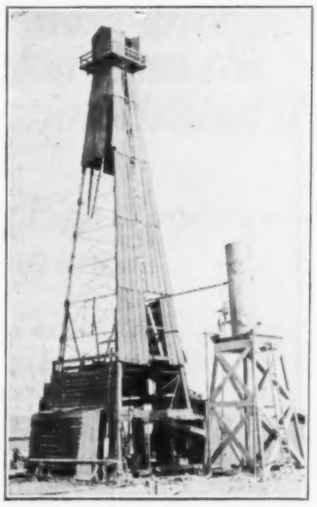
(Continued from Page 39)

tributed by volume control equipment into the individual wells.

Use Electric Power

Power will be furnished by the new plant of the Panhandle Power & Light Co., located about 4 miles northwest of Borger, which is to be formally opened with a big celebration November 17.

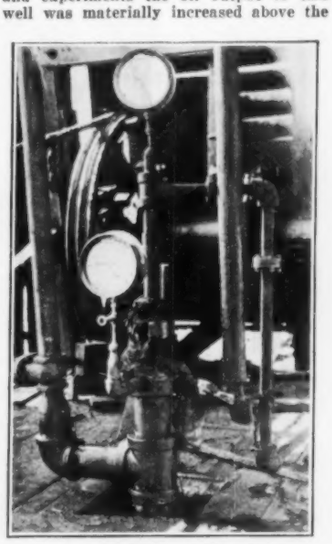
The power rates put into effect by this company are very reasonable, it is said, and make electrical operation in this field more economical than any other method. The Marland Oil Co. is electrifying all of its properties not only for use in its compressor and gasoline plants but for drilling and producing as well.



Marland Oil Co.'s No. 1 Weatherly-B, NE cor. NW NE, Section 19, Block Y, showing equipment and layout used in gas lift experiments. The horizontal tube at the left of the derrick and about 3 feet off the ground is the gas heater in which the residue gas was heated before it was forced down the casing. The gas trap at the well was used to lower back pressure on the flow line.

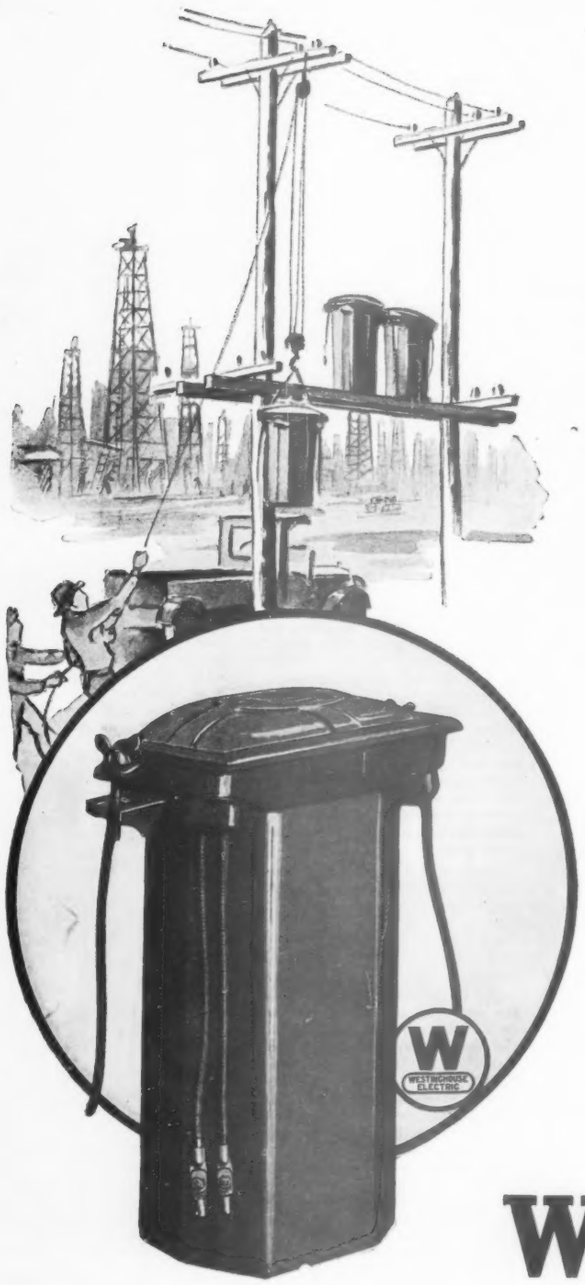
The No. 2 State of Texas test in the Canadian River bed is being rigged up to drill with electricity using the twin motor drive.

The accompanying pictures show Marland Oil Co.'s No. 1 Weatherly-B, the well on which much of the experimental gas lift work was done by the Marland engineers. In spite of constant changes and experiments the oil output of this well was materially increased above the normal decline rate. Various input pressures and gas volumes were tried out until an efficient combination was obtained. Experiments were also made both by flooding the oil through the tubing and the casing.



Control head arrangement at a time during the experiments when the gas was put down the casing and the oil flowed through the tubing.

Count the Cost
—*On the Pole*



A WELDED sheet-metal tank keeps down the weight of Westinghouse distribution transformers while adding mechanical strength and ruggedness. Although light in weight, the welded sheet-metal tank has strength in abundance. Eight years were spent in its development to make certain of a pressed steel tank that would give a quality of service equal to its heavy cast-iron predecessor. Special machinery and special tools are required to produce this high quality case on a commercial basis.

Freight rates, handling charges, and installation costs are all reduced by a lighter weight transformer. The light weight tank on Westinghouse distribution transformers keeps down the cost on the pole.

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CANADIAN FIELDS

(Continued from Page 91)

in its early days, the new oil metropolis of Turner Valley is still without railroad facilities. A good many years ago a railroad extension was surveyed through the Sheep Creek district, but the actual steel has never been laid. The nearest shipping point is on the C. P. R. north and south line at Okotoks, and the nearest business point is at Black Diamond.

The intervening roads have usually been in exceedingly poor shape. Some time ago the oil operators and the provincial authorities got together on an improvement scheme, but the work was not kept up, and this fall the roads have been in poor condition. The Alberta Government grader is, however, now at work on the road between Black Diamond and Okotoks.

CALIFORNIA FIELDS

(Continued from Page 64)

the earmarks of a good producer, failed to result in a natural flow and it will be put on the beam within 10 days. Completed at 5,097 feet, the well had approximately 1,500 feet of sand from which to draw and because of this favorable penetration a good producer was expected. The company also finished No. 11 Orange on the same property and it wil be given a test from 5,327 feet some time during the next 15 days. No. 5 Pico may also be given a test soon as it has just passed the 5,250-foot level.

Fullerton Area

The Birch Oil Co. drilled through a little better than 1,000 feet of oil sand and finished drilling its No. 1-A in the Fullerton district at 5,415 feet, from which depth it will be turned loose in the near future with a good chance of securing at least a 500-bbl. flowing well. Failure of the Nugent Oil Co.'s No. 1 Damon at Richfield to hold up, together with the small initial production registered, has resulted in the decision to deepen another 100 feet in an effort to increase production if possible. The Merchants Petroleum failed to secure a satisfactory water shut off in its 4,202-foot hole at Richfield and another cement job will be necessary. The Union has just finished No. 25 Chapman in this field and brought in a 920-bbl. flowing well from 4,614 feet, the oil testing 23.8 degrees and cutting less than 1 per cent. The company has three other wells in this district scheduled for completion soon. They are Nos. 6 and 7 on the Coyle lease and No. 2 Towell, all due to come in before the close of November.

Midway-Sunset

Due to the failure to develop deep production in the brown shale out in the Maricopa flats, the California Petroleum is abandoning No. 1 Gordon at 3,939 feet and No. 9-B Midland at 4,878 feet. Both wells were given exhaustive production tests but failed to make good and are being abandoned after a suspension of several months duration. The Standard is making preparations to bring in No. 3 Rass at 5,167 feet, although it is the present intention to add a little more hole before putting the well on the beam. The Richfield Oil Co. has announced the acquisition of 40 acres in Section 36-12-24 from C. A. Rope including the nine small wells and small absorption plant on the property. The Richfield has been aggressively acquiring properties in the Midway-Sunset area for several months. The Petroleum Development Co., which has several thousand acres of wildcat territory under lease in Monterey and San Luis Obispo Counties, has purchased the old Wisecarver property at McKittrick in Section 29-30-22 and the 10 acres adjoining in Section 30. There are four small pumpers on the property which will be cleaned out in the hope of stimulating production.

Considerable interest is being manifested in the Poso Creek area again, although from a development standpoint only a limited amount of work is being done. It is believed three new wells will be completed in this field within 10 days, included in which are the Barnsdall's No. 1 Vedder in Section 8-27-28 and the Union's No. 1 S. & M. on adjoining acreage. The California Petroleum logged an oil sand in its No. 1 Glide at 485 feet and, while no attempt was made to develop production at this depth, the showings indicate the possibility of developing shallow commercial production. The significance of the showings regardless of their productive posibilities lies in the fact that they do not correlate with the Vedder zone which the company expects to pick up around 2,000 feet. The Shell recently staked a location for No. 3 Vedder at Poso Creek and rig construction should get under way soon.

Southern California Wildcats

Although officials of the Associated are rather reluctant to release information on the company's No. 1 Cypress in the Hyde Park district west of the Inglewood Field, L. J. King, vice president and general manager, admitted a day or two ago that the well had encountered an oil sand around 4,300 feet but stated that in his opinion it was not sufficient to justify the expectation of securing commercial production. The fact that drilling is going ahead is considered evidence the company does not regard the two showings found to date as justifying a production test, although it is reported a test will be made soon. The fact remains that two promising showings have been logged to date and, while neither may prove productive, they are quite encouraging as they may overlie the real pay. It is practically a foregone conclusion further work will be undertaken in this district regardless of the outcome of the Associated's present wildcat, as it is logical to assume the 18 feet of sand found may possibly be an edge condition, in which event the center of the field would lie about a mile away.

Persistent reports credit the Petroleum Securities with a slight showing in No. 1 DeBaker, a wildcat at Bandini but a careful check indicates there is no basis for this claim as the men on the well state emphatically nothing has been encountered down to the present depth 2,980 feet. The Petroleum Securities and Pan American own in fee and have under lease several hundred acres in this section, and, although the area has been quite thoroughly tested, there is room for a new field at this point. The Southern California Drilling Co. is still working on No. 1 Matteson, a wildcat in the El Segundo quadrangle, and the crew claims another slight showing at 2,655 feet.

George W. Johnson spudded in a new wildcat 600 feet east of the Marland's No. 1 Wickham in the Saugus area, which at one time looked rather promising, and this test may bear watching during the next 60 or 90 days. Johnson is also making preparations to drill a test in the San Jose Hills approximately 500 feet south of Bardeen's No. 3 Didier, which showed some oil. The California Petroleum Development Co. claims a little oil in its test at San Juan Capistrano at 2,880 feet but those familiar with this country do not place any credence in the report. Neither the Standard's No. 1 University nor No. 1 Sesnon of the Petroleum Securities, both in the San Fernando Valley, have yet found any favorable oil or gas showings, notwithstanding the former is down 4,880 feet, while the latter is rotating ahead at 4,900 feet. The Julian Petroleum is drilling ahead in No. 1 Moser, a wildcat west of the Rosecrans Field in a hard gray sand at 3,900 feet and, while a little gas is present, no oil colors have yet been logged. The Dominguez Extension Oil Co., which is attempting to develop a field between the Dominguez and Rosecrans districts, is rotating ahead in a sticky shale at 3,145 feet.

Northern California Wildcats

The Milham Exploration Co.'s wildcat at Buttonwillow in Section 8-28-23 was the center of interest during the past two weeks due to the spectacular gas blowout and resulting fire which destroyed the rig and equipment and as there is a 50-foot crater where the derrick formerly stood, it is practically a foregone conclusion the hole has been lost. The gas was not an oil gas but is believed to be a marsh gas prevalent in this area. The Milham is moving in another rig and will undoubtedly resume work within 30 days.

Aside from this gas well of the Milham, the acquiring of 700 acres of property by

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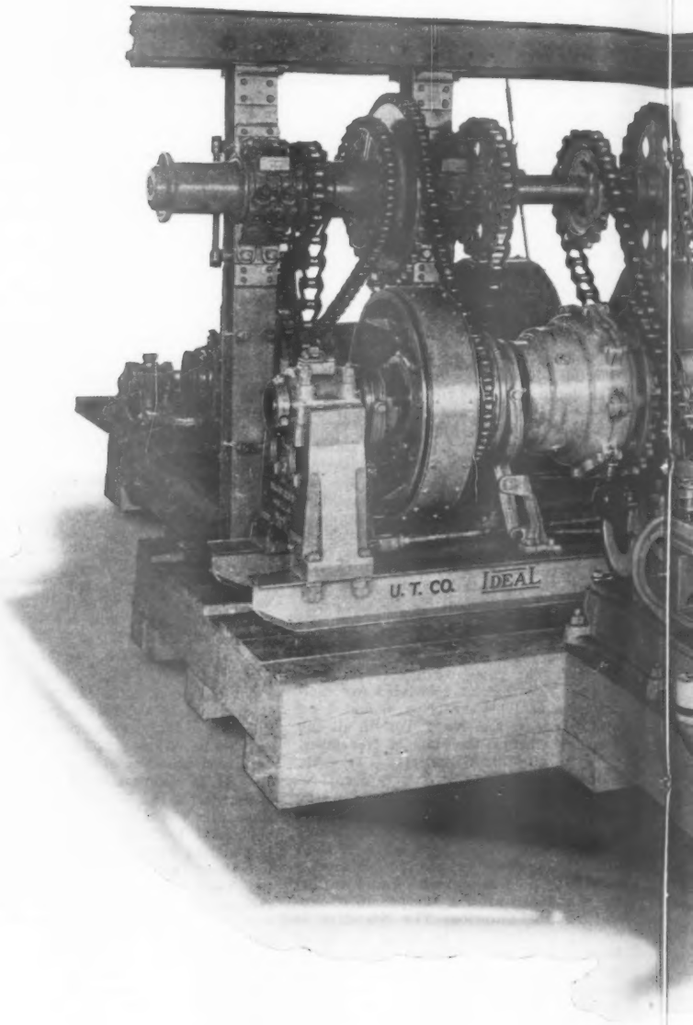

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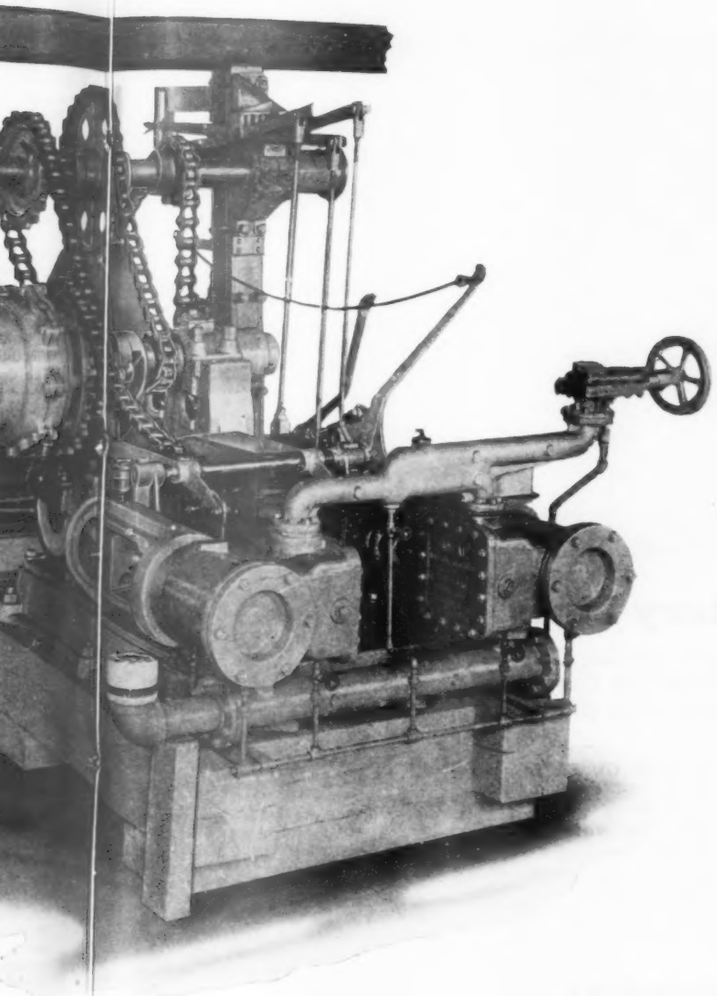

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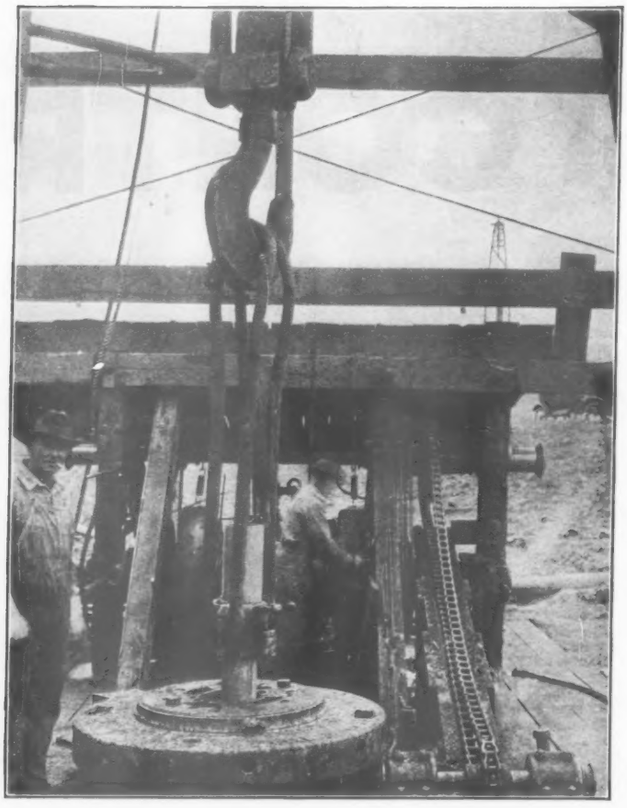

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PRODUCTS

the Shell in the Petaluma district was probably the most interesting development in northern California during the week. It is unknown whether the leasing of this new acreage is the result of the company's work on the Murphy property where it has a 3,210-foot hole but it is logical to assume at least no unfavorable formations have been discovered. The Shell took over the Murphy lease last spring from H. N. Witt and his associates and it is particularly interesting to note the company has just acquired an additional lease of 250 acres adjoining this property. The second lease which the Shell concluded in this section involves approximately 500 acres about 3 miles north of the Shell's No. 1 Murphy on what is considered by geologists to be a separate and independent structure. Under the terms of the lease the Shell is required to drill a test on this property in the near future.

The Federal Exploration Co.'s No. 1 Kinsella in Tulare County is still reporting a strong gas showing and, although this well looked quite promising the first oil showing was not of sufficient importance to warrant a test. The pay must be picked up soon as the hole has just passed the 4,100-foot mark. The General Petroleum has started rig construction for a wildcat in the Kettleman Hills in Section 30-23-19 and, due to the fact that the Bolsa Chica's test is capable of pumping 25 or 30 bbls. a day, this hole will be followed very closely as soon as drilling gets under way.

LA.-ARK. WILDCATS

(Continued from Page 55)

Section 36-10-7e, is drilling at 1,236 feet. A derrick is up for Lochnager Oil & Gas Co.'s No. 1 Beesley, 200 feet south and west NE cor. SE SW, Section 26-9-6e.

Claiborne Parish

Gilliland Oil Co. and Ramsey's No. 1-D Taylor, Section 14-23-8, was plugged back from 5,091 feet to 4,529 feet and is waiting for casing to set. A derrick pattern is on location for Mitchell & Jansen's No. 1 Wilburn, 600 feet south and 1,237 feet east NW cor. Section 23-19-7. A derrick is up for Root Refining Co.'s No. 1 Cheatham, 200 feet south and west NE cor. Section 19-22-6. Triangle Drilling Co.'s No. 1 Caskey, Section 7-19-5, set 10-inch at 114 feet and is drilling ahead at 1,200 feet. Ten-inch was set at 124 feet at E. A. Underwood and associates' No. 1 Bullock, Section 8-20-7, and the test is drilling ahead at 600 feet.

DeSoto Parish

Clark & Melat's No. 1 Willingsley, Section 12-11-16, is drilling chalk rock at 1,360 feet. Four and one-half inch casing was set at 4,863 feet at Dixie Oil Co.'s No. 1 Jenkins, Section 9-12-11, and the hole deepened to 4,868 feet. The hole is standing full of water and an effort is being made to bail it down. Helm & Jarman's No. 1 Joyner, Section 28-11-12, is drilling shale at 1,920 feet. Snapp and associates' No. 1 Lanier Oil & Land Co., Section 7-11-11, is drilling at 75 feet. The Texas Company's No. 11-A Wemple, Section 2-12-12, is drilling shale at 2,408 feet.

East Carroll Parish

T. A. Snell's No. 1 Nicholson, Section 35-20-12, was junked at 1,050 feet and the derrick skidded 30 feet west for the second hole.

Franklin Parish

Arkansas Fuel Oil Co.'s No. 1 Blue, Section 9-12-6e, is drilling in shale at 1,462 feet. Roxana Petroleum Corp.'s No. 1 Senseman, Section 18-14-7e, is a rig. The rig was moved and R. W. Williams and associates' No. 1 Lemon, Section 17-14-8e, has been temporarily abandoned at 2,020 feet.

Grant Parish

Ayers and associates' No. 1 Blackshear, Section 6-9-1e, is being rigged. E. H. Billeaud's No. 1 Ball, Section 19-7-1e, is shut down at 1,720 feet for fuel. A derrick is up for Gulf Refining Co.'s No. 1 Bullington, 200 feet north and west SE cor. NE, Section 18-9-1e. Twelve and one-half inch casing was set at 100 feet and W. R. Keever's No. 1 Barrett, 592 feet west and 150 feet south, NE cor. NE SW, Section 19-9-1e, is drilling at 1,150 feet. J. J. Long and associates' No. 1 Calhoun, Section 4-7-4, cored salt water sand at 1,631-39 feet. Tunica Petroleum Co.'s No. 8 L. & A., Section 11-8-2w, is drilling at 1,280 feet. Tunica company's No. 9. L. & A., Section 3-8-2w, is drilling at 1,400 feet. Tunica company's No. 10 L. & A., Section 8-8-1w, is being rigged.

Jackson Parish

El Dorado Chief Oil Co.'s No. 1 Jones, Section 3-14-4w, is drilling lime at 2,690 feet. Grigsby & Co.'s No. 1 Adams, Section 22-17-4w, is drilling lime at 2,430 feet. Louisiana Petroleum Corp.'s No. 2 Theus, Section 12-16-3w, is drilling shale at 2,040 feet.

LaSalle Parish

Tunica Petroleum Co.'s No. 15-A L. & A., Section 7-8-2e, was dry and abandoned at 1,827 feet. The rig was moved and Jena Oil Corp.'s No. 1 White Sulphur, Section 23-8-4e, was temporarily abandoned at 103 feet.

Lincoln Parish

Buckley & Palmer's No. 1 Davis, Section 12-20-2w, was dry and abandoned at 2,753 feet. Arkansas Fuel Oil Co.'s No. 1 Nobles, Section 18-19-3w, topped the Blossom sand at 2,685 feet and got salt water. The test is drilling ahead at 2,730 feet.

Natchitoches Parish

The Texas Company's No. 1 Moss, Section 31-7-8, in the Cypress district, was dry and abandoned at 2,052 feet. Ohio Oil Co.'s No. 2 L. L. L. L., Sectoin 20-8-8w, in the same general territory, was dry and abandoned in shale at 2,225 feet. Northwest of Natchitoches, Oil Operators Trust's No. 1 Clark, Section 9-10-8, was abandoned in shale at 3,047 feet without a test. McCormick and associates' No. 1 Russell, Section 41-10-7, is drilling gummy shale at 1,775 feet. Ten-inch pipe was set at 215 feet and Ohio Oil Co.'s No. 1 L. & A., Section 23-13-6, is drilling ahead at 908 feet. A derrick is up for Three League Oil Co.'s No. 1 Long, 290 feet south and 590 feet east NW cor. SE SW, Section 34-10-7w.

Rapides Parish

Libuse Oil & Gas Co.'s No. 1 Voda, Section 12-4-1e, is drilling shale at 2,320 feet. Seip and associates' No. 1 Ball, Section 41-4n-2w, hit salt water sand at 2,799 feet and is shut down for orders.

Red River Parish

Eight-inch casing was set at 54 feet and S. M. Cagle's No. 1 Long Bell Lumber Co., Section 6-13-9, is drilling shale at 302 feet. Magnolia Petroleum Co.'s No. 36 Polly, Section 7-12-10, is drilling chalk rock at 1,295 feet. Ten-inch was set at 304 feet, and The Texas Company's No. 1 Marston, Section 16-14-11, is drilling shale at 895 feet.

Richland Parish

Gulf Refining Co.'s No. 1 Ches-Wyman, Section 23-18-8e, northeast of Rayville, was dry and abandoned in red shale at 3,176 feet. Aarnes and associates' No. 1 Hawley, Section 3-18-9e, is being rigged. Gulf company is still trying to kill a fresh water flow at 2,340 feet at No. 1 England, Section 32-17-6e. Oliver and associates' No. 1 Hatch, Section 2-15-5e, is being rigged.

Sabine Parish

Godchaux and associates' No. 1 Nona Mills, Section 12-4-13, is drilling at 2,145 feet. Magnolia Petroleum Co.'s No. 1 L. L. L. L. Co., Section 11-6-11, is drilling shale at 2,080 feet. Lewis & Clark Petroleum Co.'s No. 1 Wyatt Lumber Co., Section 23-5-12, is drilling at 1,150 feet.

Winn Parish

Allen Drilling Co.'s No. 1 Sanders, Section 21-13-2w, is drilling at 1,935 feet. Ten-inch casing was set at 100 feet at Dodge & Cordell's No. 1 Tremont, Section 35-13-3w. Greer & Gault's No. 1 Bodcaw, 330 feet south and west NE cor. SW SW, Section 9-11-4w. Humble Oil & Refining Co.'s No. 16-A L. & A., Section 29-10-2w, is a rig. Hyde & Nelson's No. 1 Louisiana Central, Section 16-13-1w, is drilling at 1,225 feet. The plug at 704 feet is being drilled at J. C. Long's No. 1 Milam, Section 28-13-3w. Ohio Oil Co.'s No. 2 Edenborn, Section 4-12-1w, is drilling hard brown shale at 3,038 feet. F. A. Shannon's No. 1 Albritton, Section 27-10-1e, is shut down at 1,300 feet waiting for orders.

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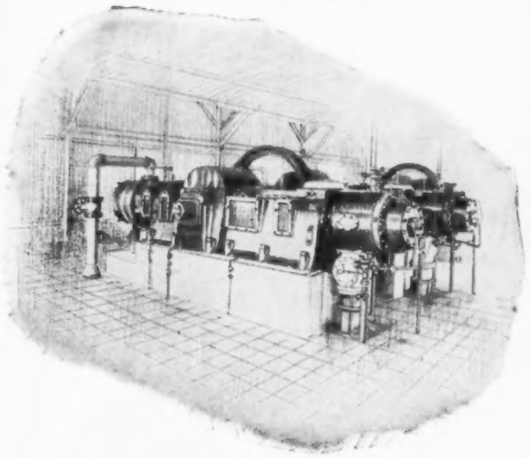

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The High Pressure Packing is an assembly of eight sections of rings, two pressure-scraper rings and six double packing rings, enclosed in a sectional cup case as illustrated, or a split case if required. All parts of the packing are accurately machined and ground. The rings are manufactured from high carbon content interstitial cast iron and so designed that incorrect application is impossible.

The High Pressure Packing is recommended for Gas Compressor Service handling all medium and high pressures.

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Garlock-875 is also supplied to work against low pressures. It is made of the same material as the High Pressure Packing with a slight change in design. Five sections of double packing rings are enclosed in a sectional cup case, or a split case as may be specified. Where gas containing grit is encountered one of the double packing rings is eliminated and one or two breaker-scraper rings substituted.

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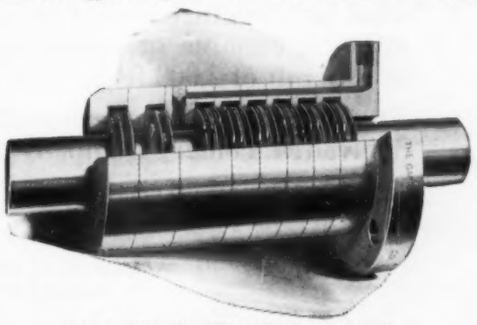

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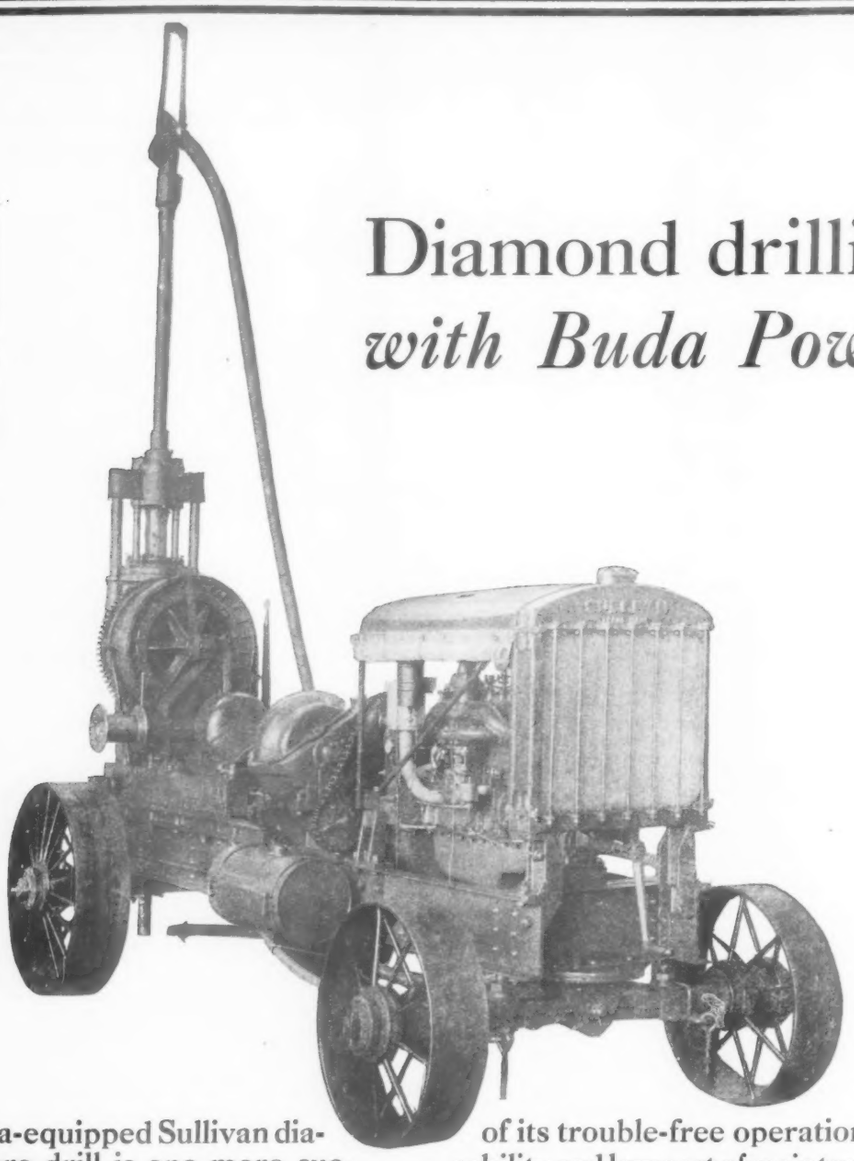

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BUDA
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PANHANDLE-WEST TEXAS STORAGE REPORT

(Continued from Page 42)

TEXAS PANHANDLE STEEL STORAGE REPORT, NOVEMBER 1, 1926
CARSON COUNTY

Company—	Location	Size	Comp.	Bldg.	Capacity Built	Capacity Bldg.
American Ref. Co.	Sec. 115, Blk. 5	55,000	1	..	55,000	.....
Gulf Prod. Co.	Sec. 106, Blk. 5	55,000	1	..	.....	.....
	S. c. 108, Blk. B-2	80,000	13	11	1,095,000	880,000
Marland Oil Co.	Sec. 116, Blk. 5	55,000	2	..	.....	.....
	Sec. 38, Blk. B-2	55,000	1	..	.....	.....
	Sec. 38, Blk. B-2	5,000	4	..	185,000	.....
Humble O. & R. Co.	Sec. 75, Blk. 5	55,000	6	..	.....	.....
	Sec. 75, Blk. 5	80,000	2	2	490,000	160,000
Skelly Oil Co.	Sec. 92, Blk. 5	55,000	1	..	55,000	.....
Plains Prod. Co.	Panhandle Rack	55,000	2	..	.....	.....
	Sec. 113, Blk. 5	55,000	1	(Leas. from Amer. Ref.)		
	Sec. 93, Blk. 5	55,000	1	(Leas. fr. W. W. Silk et al)		
	Sec. 92, Blk. 5	55,000	1	(Leas. fr. The Texas Co.)		
	Sec. 108, Blk. 5	55,000	2	..	.....	.....
	Sec. 108, Blk. 5	10,000	2	..	405,000	.....
Total Carson County					2,285,000	1,040,000
GRAY COUNTY						
Humble O. & R. Co.	Sec. 87, Blk. 3	55,000	2	1	.....	.....
	Sec. 87, Blk. 3	5,000	1	..	115,000	55,000
Magnolia Pet. Co.	Sec. 178, Blk. 3	55,000	33	..	.....	.....
	Sec. 159, Blk. 3	55,000	..	15	1,815,000	825,000
Prairie O. & G. Co.	Sec. 84, and Sec. 177, Blk. 3	55,000	7	19	385,000	1,045,000
Sinclair O. & G.	Sec. 62, Blk. 3	80,000	1	..	80,000	.....
The Texas Company	Sec. 178, Blk. 3	64,000	..	2	.....	128,000
Total Gray County					2,395,000	2,053,000
HUTCHINSON COUNTY						
Bartex (Phillips Pet.)	Sec. 12, Blk. Y	55,000	3	..	.....	.....
	Sec. 13, Blk. Y	55,000	16	1	.....	.....
	Sec. 69, Blk. 46	55,000	11	8	1,650,000	495,000
Julian Pet. (Canyon)	Sec. 12, Blk. Y	55,000	..	1	.....	55,000
Cockrell-McIlroy	Sec. 14, Blk. Y	55,000	..	1	.....	55,000
Coble-Whittenburg	Sec. 12, Blk. Y	55,000	1	..	55,000	.....
Devonian Oil Co.	Pt. 4, M. Whitley Survey	55,000	1	1	55,000	55,000
Dixon Creek Oil Co.	Sec. 11, Blk. Y	80,000	2	1	.....	.....
		55,000	1	(Leased from Japhet)		
					215,000	355,000
Echo Oil Co.	Sec. 11, Blk. Y	55,000	..	1	.....	55,000
Empire Gas & Fuel Co.	Sec. 21, Blk. Y	55,000	2	..	.....	.....
	Sec. 68, Blk. 46	55,000	1	1	165,000	55,000
Goldelline Oil Co.	Sec. 89, Blk. Z	55,000	1	..	55,000	.....
Gulf Prod. Co.	Sec. 90, Blk. Z	80,000	4	..	320,000	.....
Humble O. & R. Co.	Sec. 11, Blk. Y	10,000	2	..	20,000	.....
Dan Japhet	Sec. 11, Blk. Y	55,000	..	1	.....	55,000
Lucky 10 Oil Co.	Sec. 11, Blk. Y	.....	..	1	.....	55,000
Magnolia Pet. Co.	Secs. 5 and 11, Blk. Y	10,000	2	..	20,000	.....
Marland Oil Co.	Sec. 5, Blk. Y	55,000	5	..	.....	.....
	Sec. 19, Blk. Y	55,000	7	..	.....	.....
	Sec. 19, Blk. Y	80,000	..	2	.....	.....
	Sec. 29, Blk. 47	55,000	2	..	.....	.....
	Sec. 128, Blk. 5	80,000	..	3	770,000	460,000
McMan O. & G. Co.	Sec. 21, Blk. Y	55,000	2	..	.....	.....
	Sec. 20, Blk. Y	55,000	1	4	165,000	220,000
Midwest Exp. Co.	Sec. 5, Blk. Y	55,000	..	1	.....	.....
	Sec. 13, Blk. Y	55,000	1	..	55,000	55,000
Pantex Oil (Westex)	Sec. 13, Blk. Y	55,000	..	4	.....	220,000
Plains P. L. Co.	Sec. 11, Blk. Y	55,000	1	..	55,000	.....
Prairie O. & G. Co.	Sec. 23, Blk. Y	55,000	5	..	275,000	.....
Relief Oil Co.	Sec. 11, Blk. Y	55,000	..	1	.....	55,000
Riley & Holmes	Sec. 11, Blk. Y	55,000	..	1	.....	55,000
Roxana Pet. Corp.	Sec. 10, Blk. Y	80,000	2	1	160,000	80,000
Skelly Oil Co.	Sec. 3, Blk. B-4	55,000	..	3	.....	.....
	S. c. 22, Blk. V, Jameson Sur.	55,000	1	..	.....	.....
	Sec. 20, Blk. Y	55,000	8	6	.....	.....
	Tr. 3, M. Whitley Survey	55,000	2	..	605,000	495,000
Triangle O. & R. Co.	Sec. 5, Blk. Y	55,000	..	1	.....	55,000
Total Hutchinson County					4,640,000	2,870,000

TEXAS PANHANDLE TANK CAR SHIPMENTS, OCTOBER, 1926

Company—	Destination	No. of Cars
Atlantic O. P. Co.	Atlantic Ref. Co., Philadelphia via Houston	76
Bell O. & G. Co.	Bell O. & G. Co., Louisville, Ky.	25
	Bell O. & G. Co., Arkansas City, Kans.	201
	New Orleans Ref. Co., New Orleans, La.	25
	The Texas Company, Port Arthur, Tex.	15
Empire Gas & Fuel Co.	Empire Ref. Co., Gainesville, Tex.	313
Derby Oil Co.	Derby Oil Co., Wichita, Kans.	15
Gulf Prod. Co.	Gulf Ref. Co., Port Arthur, Tex.	104
Humble Oil & Ref.	Humble Ref. Co., Baytown, Tex.	397
Marland Oil Co.	Marland Ref. Co., Ponca City, Okla.	3,387
	Swiftsure Pet. Co., Texas City, Tex.	200
Pantex Oil Co.	Pantex Oil Co.	507
	Derby Oil Co., Wichita, Kans.	109
	Simms Oil Co., Dallas	219
	Texas Pacific C. & O., Fort Worth	139
	Bolene Ref. Co., Enid, Okla.	29
	White Eagle O. & R. Co., Fort Worth	3
Roxana Pet. Corp.	Roxana Pet. Corp., St. Louis	35
Prairie O. & G. Co.	Pure Pipe Line Co., Mexia, Tex.	77
Sinclair O. & G. Co.	Sinclair Ref. Co., Houston	608
Skelly Oil Co.	Skelly Oil Co., Eldorado, Kans.	229
White Eagle O. & R.	White Eagle O. & R. Co., Fort Worth and Augusta, Kans.	185
Total		6,898
Cars not accounted for		3,088
Total cars shipped		9,986

TEXAS PANHANDLE
Recapitulation of Receipts, Deliveries, Stocks and Storage Capacity for October, 1926

Company—	Daily Average	Receipts	Deliveries	Stock	Room	Capacity
Atlantic	510	15,810	15,810	.....	.....	.....
Bartex	29,017	899,527	451,496	1,300,411	349,589	1,650,000
Bell	2,026	62,806	62,806	.....	.....	.....
Devonian	.....	.....	.....	.....	55,000	55,000
Dixon Creek	4,155	128,805	.....	183,799	31,201	215,000
Empire	613	19,003	19,003	.....	165,000	165,000
Goldelline	.....	.....	.....	.....	55,000	55,000
Gulf	15,074	467,294	64,818	1,245,642	169,358	1,425,000
Co le-Whittenberg	.....	.....	.....	.....	55,000	55,000
Humble	9,093	281,883	115,170	374,251	250,749	625,000
Magnolia	12,070	274,170	.....	1,829,116	5,884	1,835,000
Marland	30,928	958,768	819,472	652,388	302,612	955,000
McMan	4,255	131,905	.....	131,905	30,095	165,000
Midwest	484	15,004	15,004	.....	39,996	55,000
Pantex	6,303	195,393	195,393	.....	.....	.....
Plains	12,234	279,254	328,569	255,432	204,568	460,000
Prairie	9,003	279,093	15,378	620,509	39,491	660,000
Roxana	1,365	42,315	7,037	151,979	8,021	160,000
Sinclair	4,012	124,372	124,372	.....	80,000	80,000
Skelly	7,268	225,308	51,491	426,062	233,998	660,000
White Eagle	1,200	37,200	37,200	.....	.....	.....
Totals	149,610	4,637,910	2,308,013	7,186,438	2,078,562	9,265,000

SUMMARY OF RECEIPTS

	Controlled Oil				Free Oil				Totals			
	Sept.		Oct.		Sept.		Oct.		Sept.		Oct.	
	Wells	Bbls.	Wells	Bbls.	Wells	Bbls.	Wells	Bbls.	Wells	Bbls.	Wells	Bbls.
Hutchinson	104	38,659	148	56,007	280	71,726	328	82,042	384	110,385	476	138,049
Carson	30	2,957	29	2,173	27	1,062	29	1,124	59	4,019	58	3,297
Gray	..	.....	7	273	16	3,672	31	7,469	16	3,672	38	7,742
Potter	..	.....	..	.....	1	.....	1	58	1	.....	1	58
Wheeler	..	.....	..	.....	7	249	7	464	7	249	7	464
Totals	134	41,616	184	58,453	331	76,709	396	91,157	465	118,325	580	149,610

PANHANDLE STOCKS, NOVEMBER 1

Company—	Hutchinson	Carson	Wheeler	Gray	Totals
Bartex (Phillips Pet.)	1,300,411	.....	.....	.....	1,300,411
Dixon Creek	183,799	.....	.....	.....	183,799
Gulf	312,121	933,521	.....	.....	1,245,642
Humble	.....	341,889	2,527	29,835	374,251
Magnolia	18,756	.....	.....	1,810,360	1,829,116
Marland	560,609	91,779	.....	.....	652,388
McMan	131,905	.....	.....	.....	131,905
Midwest Expl.	15,004	.....	.....	.....	15,004
Plains	.....	255,432	.....	.....	255,432
Prairie	265,348	.....	.....	355,161	620,509
Roxana	151,979	.....	.....	.....	151,979
Sinclair	.....	.....	.....	.....	.....
Skelly	413,995	12,067	.....	.....	426,062
Wrather	.....	.....	.....	.....	.....
Totals	3,353,927	1,634,628	2,527	2,195,356	7,186,438

PIPELINE DELIVERIES

Company—	County Delivered from—	
Atlantic	Gray	15,810
Bartex	Hutchinson	451,494
Bell	Hutchinson	62,806
Empire	Hutchinson	19,003
Gulf	Hutchinson and Carson	64,818
Humble	Hutchinson, Gray, Carson and Wheeler	115,170
Marland	Hutchinson and Carson	819,472
Pantex	Hutchinson and Potter	195,393
Roxana	Hutchinson	7,037
Plains	Hutchinson and Carson	328,569
Prairie	Hutchinson	15,378
Sinclair	Gray	124,372
Skelly	Hutchinson	51,491
White Eagle	Hutchinson	37,200
Wrather	Wheeler	.....
Total		2,308,013

WEST TEXAS STEEL STORAGE REPORT, OCTOBER, 1926
CRANE-UPTON COUNTIES

Company—	Farm	No.	Size	Capacity	Stock	Room
Humble P. L. Co.	University	3	55,000	165,000	.....	.....
		1	5,000	5,000	72,564	98,068
Kay County Gas		4	5,000	20,000	13,788	6,212
		4	55,000	220,000	210,473	9,527
The Texas Company		1	37,000	37,000	17,013	19,987
CROCKETT COUNTY						
Humble P. L. Co.	Powell	1	55,000	55,000	15,439	38,301
Kay County Gas	Powell	2	5,000	10,000	5,000	5,000
MITCHELL COUNTY						
Magnolia Pet. Co.	Westbrook	1	55,000	55,000	.....	.....
Col-Tex Ref. Co.	Westbrook	1	55,000	55,000	.....	.....
	(Leased from Magnolia Pet. Co.)					
REAGAN COUNTY						
Texon O. & L. Co.	University	9	55,000	495,000	150,000	345,000
Big Lake Oil Co.	University	12	55,000	660,000	310,000	350,000
Humble P. L. Co.	University	5	64,000	320,000	44,311	277,052
Reagan Co. Pur. Co.	University	16	80,000	1,280,000	390,000	890,000

RECAPITULATION OF STEEL STORAGE BY COMPANIES BUILT AND BUILDING

Company—	Bbls.
American Ref. Co.	55,000
Bartex P. L. Co. (Phillips Pet. Co.)	2,145,000
Julian Pet. Corp. (Canyon)	55,000
Coble-Whittenburg	55,000
Cockrell-McIlroy	55,000
Devonian Oil Co.	110,000
Dixon Creek Oil Co.	570,000
Echo Oil Co.	55,000
Empire Gas & Fuel Co.	220,000
Goldelline Oil Co.	55,000
Gulf Prod. Co.	2,295,000
Humble O. & R. Co.	540,000
Dan Japhet	55,000
Lucky 10 Oil Co.	55,000
Magnolia Pet. Co.	2,660,000
Marland Oil Co.	1,355,000
McMan Oil & Gas Co.	385,000
Midwest Exp. Co.	110,000
Pantex P. L. Co.	220,000
Plains Prod. Co.	460,000
Prairie O. & G. Co.	1,705,000
Relief Oil Co.	55,000
Riley & Holmes	55,000
Roxana Pet. Corp.	240,000
Sinclair O. & G. Co.	80,000
Skelly Oil Co.	1,155,000
The Texas Company	128,000
Triangle Oil Co.	55,000
Total	15,280,000

RECAPITULATION BY LOADING POINTS

Town—	Cars
Panhandle	5,815
Amarillo	1,354
Kings Mill	226
Pampa	986
Isom	1,605
Total	9,986

CALIFORNIA MARKET LOOKING FOR CRUDE CUT

LOS ANGELES, Calif., Nov. 13.—At present the future trend of crude prices is the one factor that concerns oil marketers in California. The recent price cuts east of the Rockies have a weakening effect upon the crude structure in California and many marketers are looking for a cut before long. It is pointed out that California production, due principally to the Huntington Beach extension and the Ventura Avenue Field, is steadily mounting, that shipping rates on crude have been increased and that for California crude to be shipped East in any volume it will be necessary for California prices to be cut to compete with other crude throughout the United States.

As to whether a crude reduction at this time would mean a further reduction of gasoline prices is hard to answer. Gasoline is down to rock bottom and it is doubtful if any further cuts should be made even though crude should be reduced. On the other hand, if too large a differential is allowed between gasoline and crude prices, it is very probable more bootleg gasoline will come on the market and cut price conditions, very hurtful at present, will become worse.

Natural gasoline production is steadily increasing due to the flush gas production in the Ventura Avenue Field and also to the remarkable rich gas obtained from wells in the Huntington Beach extension. This gas has a content of between 2 and 3 gallons of gasoline per 1,000 feet of gas. The incrensed winter consumption of natural gasoline which is expected to improve in the next 30 to 60 days, is helping to a great extent to offset this increased production.

PENNSYLVANIA MARKET WAS FAIRLY STRONG

OIL CITY, Pa., Nov. 13.—Despite crude oil price reductions in some parts of the country and cold weather with the first freeze of the winter recorded, the Pennsylvania gasoline market was fairly strong during the week with no price recessions recorded and a lot of the product moving. Kerosene was in fair demand. Fuel oil continues to be strong and is moving well largely on account of the coal shortage which is still very pronounced throughout this territory. Wax is holding its own.

Demand for cylinder stocks has been picking up and considerable of this product has been moving from the Pennsylvania refineries during the past few days. Neutrals are still strong and scarce in this district. Bright stocks are in good demand.

MONTANA'S CHAPTER IN ANNUAL MEETING

GREAT FALLS, Mont., Nov. 13.—On December 1, 2 and 3 the Montana chapter of the Rocky Mountain Oil & Gas Association will hold its annual meeting at Great Falls and preparations are being made for a large gathering of oil men both from the Montana fields and from outside the state.

The officers of the association are: A. Judson Findley, president; H. Earl Clack, vice president; E. B. Coolidge, M. C. Henderson, vice presidents; A. D. Becker, treasurer, and Walter F. Brittan, secretary. The directors are: L. B. O'Neil, A. E. O'Brien, C. H. Brown, Thomas Arthur, E. B. Coolidge, M. C. Henderson, J. H. Clark, H. Earl Clack, O. I. Deschon and A. Judson Findley.

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Ar. Kansas City	9:25 PM	7:40 AM	8:10 AM	10:25 AM
Lv. Kansas City	11:10 PM		8:20 AM	2:45 PM
Ar. Tulsa, Okla.	7:45 AM		5:25 PM	10:15 PM

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SOUTHWEST WILDCATS

(Continued from Page 56)

gether. H. F. W. Oil Co.'s No. 1 M. M. Garcia, Survey 538, located 2,722 feet to south line and 2,102 feet to west lines, has made location.

Webb County

Alexander and others' No. 1 Moglia, Survey 670, located 150 feet to north line and 660 feet to east line, is drilling. R. F. Duggan's No. 1 Neal, Survey 1,008, located 1,053 feet to south line and 1,600 feet to west line, drilling at depth of 2,420 feet. Cresswell-Fallin's No. 1 Gatesm in Leaseholders Pool, Survey 17, Block 1, located 189 feet to north line and 2,640 feet to east line, drilling at 2,047 feet. W. A. Wheatley and others' No. 1 Reiser, Survey 1,618, Block 7, located 150 feet to north line and 300 feet to west line, drilling at 2,700 feet. M. J. Bashara's No. 1 Espejo, Porcions 47-48-49-40, Block 75, located 222 feet to west line and 55 feet to south line, drilling at 1,910 feet. Magnolia Petroleum Co.'s No. 1 Neal, Survey 132, Block 12, located 150 feet to north and west lines, and 5 miles southwest of Cole Gas Field, drilling at 4,006 feet; No. 1 Paige Garcia, Survey 611, located 150 feet from west corner of Survey 139, drilling at depth of 3,300 feet. Henne, Winch & Killam's No. 1 Billings, NE SW Survey 43, located 150 feet to north and west lines, drilling at 2,000 feet.

Zapata County

Burns & Malone's No. 1 Bustamente, Block 38, located 660 feet to north and west lines, drilling at 850 feet. The Texas Company's No. 3 Jennings, Cerrito Blanco Survey, 6,388 feet to northwest line and 10,833 feet to southwest lines and southwest of No. 2 drilling at 4,073 feet. Howard-Staggs and others' No. 1 Hinnant, Survey 126, Block 3 located 150 feet to northwest and southwest lines, drilling at 1,500 feet.

Atascosa County

Witherspoon Oil Co.'s No. 1 English, Survey 173, is rigging up, located a few miles southwest of production in the Somerset Field, and is near the west county line. W. G. French's No. 1 Frank Jaksik, Manuel Escalaero Survey, 900 feet to west line and 600 feet to south line of farm has been abandoned at 4,005 feet.

Bexar County

Mariand Oil Co.'s No. 1 San Antonio Trust Co., J. Pickins Survey, Block 1, located 2,280 feet to east line and 1,528 feet to south line, is drilling at 1,600 feet with diamond core drill. B. F. Thompson's No. 1 Weiter, located in eastern part of county, drilling at depth of 1,554 feet, having topped the Georgetown at 1,543 feet.

Brooks County

Ballard & Underwood's No. 1 Lasater, Survey 331, located 621 feet to north line and 150 feet to east line, is drilling a little below 3,025 feet.

Brewster County

Green Valley Oil Corp.'s No. 3 Wilson, 20 feet south of No. 1, is drilling at 1,200 feet.

DeWitt County

Empire Southern Oil Co.'s No. 1 C. G. Smith, 8 miles southwest of Cuero and west of river, cored sand at 1,384 feet containing oil showings. Well is ratholing with 6-inch bit and coring frequently.

Fayette County

Plum Oil & Gas Co.'s test 7 miles west of LaGrange, drilling in Edwards lime at depth of 4,210 feet. Plum Oil & Gas is drilling the test jointly with Arroyo Petroleum Co. G. W. Paige & George W. Zeigin's No. 1 Rosa Russek, East Anderson League, 1 mile northwest of Schulenberg and one-fourth of mile east of Foster Creek fault line, drilling at depth of 1,600 feet.

Gonzales County

Kercheval and others' No. 1 Billings, near Smiley at depth of 1,312 feet bailed to within 400 feet of bottom and fluid rose to 190 feet of the top in 30 minutes. Well is to be bailed this week and liner will be set after plugging back. Martin Oil & Development Co.'s No. 1 Preston, near Cheapside in center of Pace 1-3 League, is waiting on casing. E. Lee Moore, near Cheapside, has spudded in and is drilling at 450 feet.

Guadalupe County

Mid-Kansas Oil Co.'s No. 1 J. H. Hermann, William J. Ragsdale Survey, 2,900 varas from west line and 500 varas to south line, 7 miles north of Seguin, is having casing set at 1,370-81 feet to test dobe formation between Georgetown and Edwards. Texas No. 1 Glenwinkle is drilling at 1,065. H. H. Weinert is rigging up for No. 1 Weinert.

LaSalle County

DeLange, Eiser Development Co.'s No. 1 Dobie (fee), Survey 102, located 600 feet to east line and 1,800 feet to south line, drilling at 1,620 feet in sandy shale with no water.

Medina County

Ralph R. Lewis and others' (formerly Lewis & Feltner) No. 1 M. A. Keller, Andrew Northington Survey No. 8, located 150 feet south of center of north line, is drilling. J. H. Gray and others' No. 1 Mary Newmann, E. H. Durst Survey No. 16, located in northeast corner of survey has spudded in. Fennell and others' No. 1 Fohn, Survey 115, east 100 acres is drilling at 950 feet. J. A. Swayze's No. 1 C. A. Oeffinger, Survey 129, center of north 40 acres of Block 22, has encountered flint rock at 3½ feet and is still in rock. Ina Oil Co.'s No. 1 Charles Finger, Survey 746, about center of north one-half, is underreaming at 1,306 feet. Cecil Switzer's No. 1 Zerr, Survey 459, west central part, is underreaming at 2,700 feet.

Maverick County

Johnstone & Hout's No. 1 Whipff, located 9 miles from Eagle Pass, is to resume drilling after a shut down of over two months, which was caused by a fishing job and wrecked derrick.

Mexico

Ohio-Mexico Oil Corp. test 25 miles south of Cuarto Cienegas is drilling, having spudded in October 25.

McMullen County

Dodson and others' No. 1 Franklin, Survey 31, southwest 1-4 is drilling at 600 feet. Houston Gulf Gas Co.'s No. 5 Jacobs, J. Rees Survey, 600 feet to north line and 2,500 feet to west lines, is drilling at 400 feet.

Val Verde County

Douglas Oil Co.'s No. 1 Sellers, Block 1, Section 82, southwest corner is drilling at 500 feet. Hiawatha Oil Co.'s No. 1 Sellers, Block A, Section 1,031, center of section is drilling at 500 feet. Transcontinental Oil Co.'s No. W. S. Stevenson, NE SE NE Block 4, Section 8, is drilling at 2,600 feet. O. O. Owen's No. 1 Mills ranch, Section 145, northwest corner of section, Block Q-8, is drilling at 500 feet. Independent Operator's No. 1 Whitehead, Block 4, Section 30, is drilling at 3,600 feet. East Del Rio Oil Co.'s No. 1 Russell, east corner of Section 183, is re-setting casing.

Wilson County

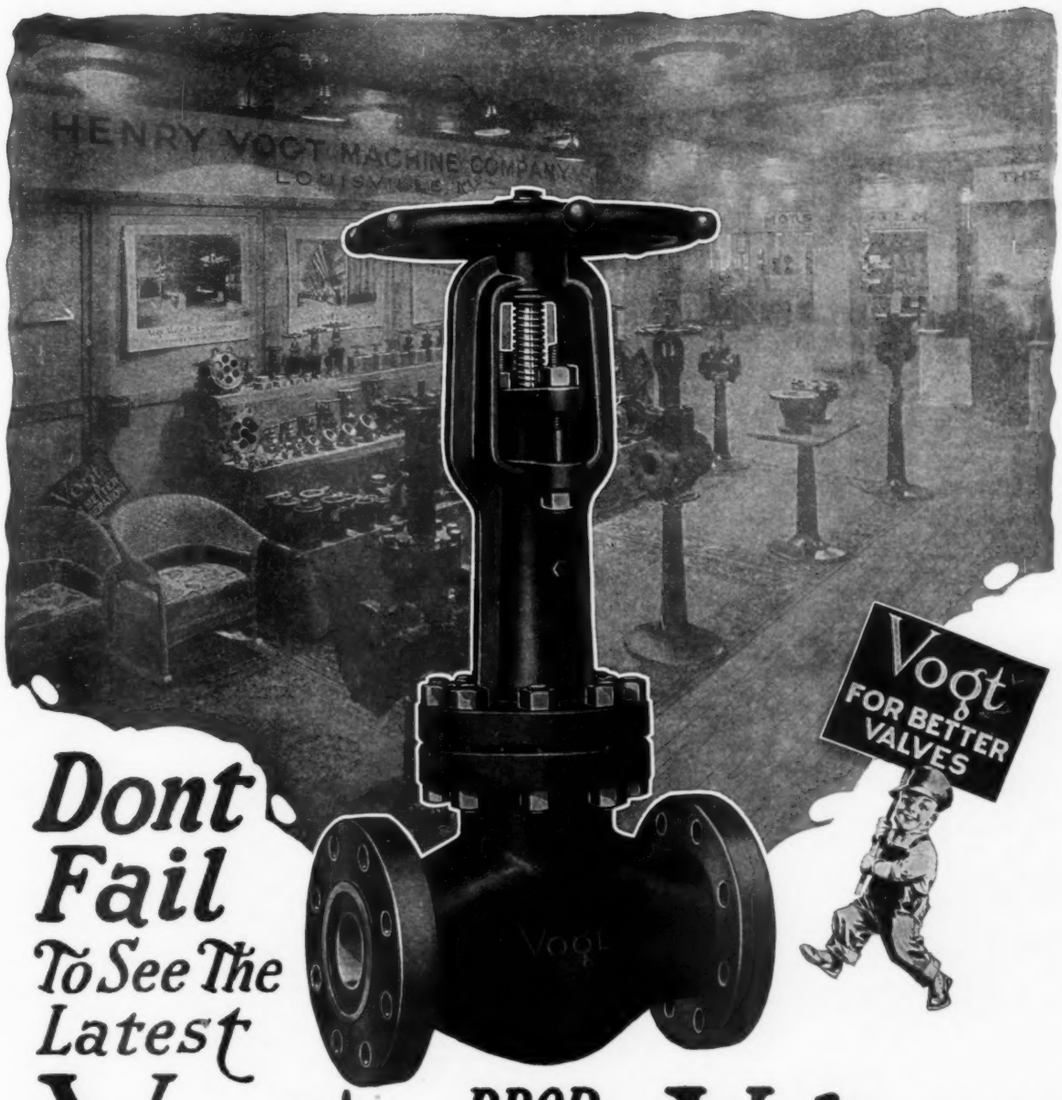
Humble Oil & Refining Co.'s No. 1 D. A. Sellers, Joseph Reynolds Survey, 330 feet to east line and 950 feet to south line of Sellers farm, 7½ miles northeast of Floresville is drilling at 3,180 feet.

Williamson County

Williamson County Oil Co.'s No. 1 Fouse, near Round Rock, has been put on the pump at 160 feet and is producing; No. 3 Fouse, 1,200 feet west of No. 1, the discovery well, has topped sand at 510 feet and will set casing and test. Wright, Fair & Numan's No. 1 Nelson, 2 miles west of Fouse No. 1 the discovery well of that field, has spudded in and will carry 10-inch hole down to sand at 472-540 feet.

CRESCENT PIPELINE

PITTSBURGH, Pa., Nov. 13—Due to unfavorable weather and scaricity of labor, completion of salvage of Crescent Pipe Line Co. pipe has been delayed. About 20 miles out of 274 miles of pipe still remain in the ground. In July, 1925, the directors decided to tear up the line and liquidate, since users of the line had turned to tank ships for their supply of crude oil.



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WILDCAT OPERATIONS IN PANHANDLE

(Continued from Page 48)

COLLINGSWORTH COUNTY

Allmen et al's No. 1 McDowell, Sec. 107, Blk. 22 ..... Drilling, 1,890 ft.
Duke & Langford's No. 1 Martha Johnson, Sec. 97, Blk. 22 Location.
Harmon & Deems' No. 1 Wilson (Scott), Sec. 44, Blk. 21 Rig on ground.
Martin et al's No. 1 T. V. Norwood, Sec. 30, Blk. 16 ..... Spudded, S.D.
Wischkamper's No. 1 fee, C SE, Sec. 93, Blk. 16 ..... New loc.

DALLAM COUNTY

James et al's No. 1 fee, Sec. 9, Blk. 47½ ..... S.D., 2,870 ft.
Harry Skelly et al's No. 1 Capitol Synd., Sec. 19, Blk. 17 Fishing, 1,150 ft.
Marland Oil Co. et al's No. 1 Capitol Synd., Sec. 36, Blk. 18, Capitol Synd. land ..... Rigging up.

DEAF SMITH COUNTY

Julian & DeGrace's No. 1 Mrs. R. A. Hindley, Sec. 47, Blk. K-8 ..... Rig.
Red Hill Oil Corp.'s No. 1 Barrett, Sec. 93, Blk. K-4 ... Building rig.

DONLEY COUNTY

A. T. Drilling Co.'s No. 1 F. E. Harrington, Sec. 39, Blk. 3-C ..... Drilling, 515 ft.

GRAY COUNTY

Archer, Blake et al's No. 1 Turneau, Sec. 111, Blk. 2-B Spudded, S.D.
Bay Shore Oil Co.'s No. 1 C. W. Bradford, Sec. 143, Blk. 2-B ..... T.D., 2,666 ft., water well finished.
Blackwell & McGee's No. 1 Bowers, Sec. 92, Blk. 2-B ... Fishing, 990 ft.
Boone Drlg. Co.'s No. 1 J. S. Mackie, Sec. 115, Blk. 2-B Rigging up rotary.
British-Amer. O. Co.'s No. 1 J. E. Meers, Sec. 107, Blk. 3 Cementing 12-in., 411 ft.
Canyon Oil Co.'s No. 1 Jackson est., Sec. 60, Blk. 2-B .... 4,000,000 ft. gas, 2,704 ft., half bailer heavy oil, 2,809-20 ft., shot 540 qts. in sandy lime, 2,809-80 ft., flowed 316 bbls., first 24 hrs., 12,000,000 ft. gas.
Constantin et al's No. 1 Dial, Sec. 33, Blk. 25 ..... Drilling, 2,450 ft., small show oil, 2,194-2,200 ft., show gas, 2,263-65 ft., 10,000,000 ft. gas, 2,367-2,400 ft.
H. B. Ellers' No. 1 Crews, Sec. 12, Blk. 25 ..... Spudded, S.D.
Empire G. & F. Co.'s No. 1 B. Hughey, Sec. 129, Blk. 3 .. Fishing 6-in., 3,010 ft.
Empire G. & F. Co.'s No. 1 J. J. Wall, Sec. 161, Blk. 3 .. 30,000,000 ft. gas, 2,805 ft., drilling, 2,930 ft.
Empire G. & F. Co.'s No. 1 Webb, NW cor. Sec. 60, Blk. 25 ..... New loc.
Jack Greenwood et al's No. 1 H. B. Lovett, Sec. 26, Blk. 2-B ..... Set 8-in., 2,450 ft.
Gray Co. Pet. Co.'s No. 1 W. L. Herndon, Sec. 147, Blk. 3 Rig.
Gulf Prod. Co.'s No. 1 R. S. McConnell, Sec. 175, Blk. 3 .. T.D., 3,170 ft., granite wash, fishing bailer, 20 ft. oil in hole.
Johnson & Martin's No. 1 Fanny Holloway, Sec. 7, Blk. H A. W. Wallace Sur., loc.
Magdalene Oil Co.'s No. 1 J. E. Williams, Sec. 17, Blk. 1 .. Spudded, S.D.
Magnolia Pet. Co.'s No. 1 Heithholt, Sec. 152, Blk. 3 .... C.O., 2,250 ft.
Magnolia Pet. Co.'s No. 1 A. Holmes, Sec. 106, Blk. 3 .... Rigging up.
Nabob Oil Co.'s No. 1 J. S. Moore, Sec. 68, Blk. 25 ..... 2,000,000 ft. gas, 2,527 ft., dry granite wash, 2,595-2,610 ft.
Pampa Oil Co.'s No. 1 W. R. Campbell, Sec. 90, Blk. 3 .. 1,055-ft. bad hole, skidding.
Pampa Pet. Co.'s No. 1 Mary Leopold, Sec. 141, Blk. 3 ... Drilling, 510 ft.
Riley & Heck's No. 1 Mrs. Hopkins, Sec. 66, Blk. 2-B ... Drilling, 2,150 ft.
Slay et al's (was Henry Riley) No. 1 J. M. White, Sec. 212, Blk. 2-M ..... Repairing rig, 2,800 ft.
Skelly Oil Co.'s No. 1 A. G. McKay, Sec. 175, Blk. 3 ... Set 12-in., 915 ft.
The Texas Company's No. 1 H. M. Barrett, Sec. 131, Blk. 3 Rotary rig, R.U.
The Texas Company's No. 1 O. N. Frashier, Sec. 162, Blk 3 ..... Rotary rig, drlg. water well.
The Texas Company's No. 1 C. W. Saunders, Sec. 81, Blk 3 ..... 400 ft. oil in hole, 3,285-90 ft. T.D., 3,295 ft., shot 40 qts., 3,-282-94 ft., bridged, no gas.
The Texas Company's No. 1 Osborne, Sec. 108, Blk. 3 .... Rotary rig.
Travis et al's No. 1 J. Back, Sec. 44, Blk. 25 ..... Rig down.
Upham Gas Co.'s No. 1 W. E. Grammage, Sec. 4, Blk. 25 Rig.
Weir, Kribs & Finklea's No. 1 B. F. Talley, Sec. 114, Blk. 2-M ..... Spudded, S.D.

HANSFORD COUNTY

Caldwell et al's No. 1 J. Adriance, Sec. 21, Blk. 3, G. H. & H. Sur. ..... Location.
F. W. Dillard et al's No. 1 F. A. Davis, Sec. 50, Blk. 2 Spudded, S.D.
Oklavania Oil Co.'s No. 1 Whitson, Sec. 2 ..... Drilling, 1,625 ft.

HARTLEY COUNTY

Amerada Pet. Corp.'s No. 1 Frances Farwell, Sec. 27, Blk. 16 ..... Fishing, 248 ft.
Deep Rock Oil Co.'s No. 1 Lyman & Balfour, Sec. 9, Blk. 2 ..... S.D., 1,710 ft.
Eslick et al's No. 1 J. B. Irving, Sec. 13, Blk. 13 ..... S.D., 1,500 ft.
W. W. Holmes' No. 1 G. B. Coots, Sec. 58, Blk. XR ..... Drilling, 1,450 ft.
Humble O. & R. Co.'s No. 1 J. M. Shelton, Sec. 63 ..... Drilling, 2,470 ft.
J. E. McKanna's No. 1 E. S. Collins, Sec. 3, Blk. LS ..... Drilling, 950 ft.
J. E. McKanna's No. 1 Frances Farwell, Sec. 10, Blk. 22 S.D., 810 ft.
J. E. McKanna's No. 1 J. M. Shelton est., Sec. 29, Blk. 202 S.D., 1,990 ft.
Kork Oil Co.'s No. 1 J. M. Shelton est., Sec. 1, Blk. 8-B Spudded, S.D.

HEMPHILL COUNTY

Andrade et al's No. 1 Humbolt, Sec. 44, Blk. 1 ..... Location.
A. J. Calhoun's No. 1 J. C. Isaacs, Sec. 189, Blk. C ..... Rig.
Dorning et al's No. 1 Alexander, Poltevent Sur. ..... S.D., spudded.
Fisher Oil Co.'s No. 1 J. E. George, Sec. 40, Blk. 2-A .... Run. 8-in., 2,732 ft.
Hoover et al's No. 1 Schaller est., Sec. 4 ..... Spudded, S.D.
Hoover et al's No. 1 fee, J. S. Hood Sur. ..... S.D., 2,950 ft.

HUTCHINSON COUNTY

Anderson & Pritchard's No. 1 Yake, Sec. 1, Blk. J ..... U.R., 1,670 ft.
Dominion Oil Co.'s No. 1 C. H. Jasper ..... S.D., 750 ft.
Get Oil Co.'s No. 1 W. P. Allen ..... Spudded, S.D.
Marland Oil Co.'s No. 1 State of Texas, River Bed ..... U.R., 6-in., 3,175 ft.
Marland Oil Co.'s (Lee Flowers) No. 1 Carver, Wm. Heath Sur. ..... U.R., 1,360 ft.
Pole Cat Oil Co.'s No. 1 W. B. Haile, Sec. 24, Blk. M-21 Rig.
Panfield Oil Co.'s No. 1 Luginbyhl Bros., Sec. 50, Blk. M-23 ..... Drilling, 960 ft.
Prairie, Shamrock & Hagy's No. 1 Yake, Sec. 35, Blk. 47 Show gas, 2,430 ft., S.D., 2,470 ft.
Rock Island Oil Co.'s No. 1 W. A. Starnes, Sec. 22, Blk. M-23 ..... Drilling, 860 ft.
Sinclair Oil Co.'s No. 1 Williams, Sec. 43, Blk. 47 ..... 20,000,000 ft. gas, 2,535 ft., show oil 2,905-07 ft., show oil, 2,912-14 ft., set 6-in., 2,914 ft., T.D., 3,016 ft., hole filled 200 ft. in 12 hrs., S.D., for shot.
Tex-O Oil Co.'s No. 1 Johnson Bros., Tomlinson ..... S.D., 2,950 ft.
Wentz Oil Corp.'s No. 1 Cal Merchant, Sec. 34, Blk. 47 .. Top pay, 2,777 ft., T.D., 2,800 ft. (corrected), water, will plug.
Western Dev. Co.'s No. 1 O. W. Jarvis ..... Fishing, 3,485 ft.

LIPSCOMB COUNTY

Everett et al's No. 1 Mrs. H. D. May, Sec. 612, Blk. 43 .. Drilling, 960 ft.
McCorkle et al's No. 1 Barton, Sec. 504, Blk. 43 ..... S.D., 3,645 ft., 200 ft. water in hole, 3,635 ft.

MOORE COUNTY

Amarillo Oil Co.'s No. 1 Masterson-J, Sec. 59, Blk. O-18 .. Drilling, 2,530 ft.
Amarillo Oil Co.'s No. 2 Terry Thompson, Sec. 19, Blk. 44 Drilling, 2,535 ft.
Cadman et al's No. 1 J. T. Sneed, Jr., Sec. 68, Blk. 3 .... Small show oil, 3,225-26 ft., 800 ft. water in hole, 3,255 ft., S.D., 3,272 ft.
Douglas Oil Co.'s No. 1 H. W. Beauchamp, Sec. 112, Blk. 44 ..... Drilling, 700 ft.
Flowers and Marland Oil Co.'s No. 1 J. T. Sneed, Jr., Sec. 25, Blk. 1 ..... 10,000,000 ft. gas, rig burned, 3,-045 ft.
Humble O. & R. Co.'s No. 1 Kilgore, Sec. 78, Blk. 44 .... Drilling, 1,980 ft.
Phillips Pet. Co.'s No. 1 Sneed, N. Jones Sur. ..... S.D., 3,095 ft.
Masters Oil Co.'s No. 1 J. T. Sneed, Jr., Sec. 58, Blk. 6-T. Drilling, 1,150 ft.
Morton & Co.'s No. 1-H Rubert, Sec. 191, Blk. 3-T ..... Drilling, 1,315 ft.
Prairie O. & G. Co.'s No. 2 Sneed, Sec. 26, Blk. 6-T ..... Run. 6-in., 3,112 ft.
Moore County Oil Co.'s No. 1 Sneed, Sec. 30, Blk. 6-T ... S.D., 1,250 ft.
Shadler Bros.' No. 1 John Lowery, Sec. 237, Blk. 44 ..... Drlg. water well.
Prairie and Shamrock's No. 1 Gober, Sec. 16, Blk. M-21 .. Drilling, 905 ft.

OCHILTREE COUNTY

W. G. Burton's No. 1 Stickler, Sec. 579, Blk. 43 ..... S.D., 3,540 ft.
Hamilton et al's No. 1 R. E. Wamble, Sec. 144, Blk. 43 ... S.D., 250 ft.
McCorkle Pipe Line Co.'s No. 1 R. H. Moore, Sec. 471, Blk. 43 ..... S.D., 1,600 ft.
McCorkle's No. 1 Weinett, Sec. 674, Blk. 43 ..... Rig.
Standard Dev. Co.'s No. 1 Bowden, Sec. 923, Blk. 43 ... S.D., 900 ft.

OLDHAM COUNTY

Prairie O. & G. Co.'s No. 1 Landergin, SE cor. NE SW, Sec. 46 ..... New loc., rig on ground.

PARMER COUNTY

Humble O. & R. Co.'s No. 1 Farwell et al, Sec. 2, Blk. 2 Spudded, S.D., to repair rig.

POTTER COUNTY

Amarillo Oil Co.'s No. 1 Fuqua, Sec. 4 ..... Drilling, 2,825 ft.
The California Co.'s No. 1 G. A. Carey, Sec. 6, Blk. Z-6 Drilling, 2,465 ft.
Greater Amarillo Pet. Co.'s No. 1 Townsite, Sec. 167, Blk. 2, A. B. & M. Sur. ..... Run. 15-in., 510 ft.
Gulf Prod. Co.'s No. 1 W. H. Bush, Sec. 89, Blk. 9 .....
Farmer O. & G. Co.'s No. 1 J. A. Jones, Sec. 3, Blk. 1 .... S.D., 200 ft.
Kelmey Oil Co.'s No. 1 W. H. Bush, Sec. 19, Blk. 9 ..... Rig.

RANDALL COUNTY

Red Hill Corp.'s No. 1 J. M. Redfearn, Sec. 97, Blk. B-5 Drilling, 2,400 ft.

ROBERTS COUNTY

Big Ben Oil Co.'s (was Phil Engle's) No. 1 Mrs. H. Ledrick & Sons ..... Drilling, 4,195 ft.
Gibson Oil Corp.'s No. 1 T. S. Jones, Sec. 109, Blk. C .... Drilling, 1,960 ft.
Mercer & Dunbar's No. 1 H. A. Gill, Sec. 127, Blk. M-2 Cellar.
Murphy et al's No. 1 A. W. Gill, Sec. 31, Blk. 2-M .....
Chas. Page et al's No. 1 Hamilton Tract 2, Clay County School Land ..... Lost hole, 700 ft., skidding rig 25 ft. west.
Pan-State Oil Co.'s No. 1 A. H. Tandy, Sec. 179, Blk. 42 .. Rigging up.
Pettijohn et al's No. 1 J. A. Meade, Sec. 29, Blk. 1-B .... S.D., 463 ft.
Trammel et al's No. 1 A. H. Tandy, School Land Sur. .... Spudded, S.D.

SHERMAN COUNTY

Get Oil Co.'s No. 1 Bivins, Sec. 35, Blk. 3-B ..... S.D., 710 ft.
Phillips Pet. and Savoy's No. 1 Roach, Sec. 161, Blk. 1-C .. Drilling, 1,690 ft.

SWISHER COUNTY

Keagan & Baker's No. 1 Stallings, Sec. 8, Blk. M-13 ..... Moving in spudder (no report).

WHEELER COUNTY

American Ref. Co.'s No. 1 E. E. Carlton, Sec. 29, Blk. 13 .. Drilling, 1,700 ft.
Angus et al's No. 1 L. C. Burcham, Sec. 91, Blk. 17 ..... Rig.
Boyles & Johnson's No. 1 S. L. Lewis, Sec. 40, Blk. 24 .... Rig.
Hill, Cook & Riley's No. 1 L. H. Webb, Sec. 61, Blk. 24 .... Drilling, 1,700 ft.
Laycock et al's No. 1 fee, Sec. 10, Blk. 27 ..... Fishing, 2,000 ft.
Magnolia Pet. Co.'s No. 1 E. C. Johnson, Sec. 40, Blk. 24 .. Spudded.
Mid-Cont. Pet. Co.'s No. 1 J. H. Jackson, Sec. 12, Blk. 27 Building rig.
Murchison & Fain's No. 1 Binkley & Cain-A, Sec. 37, Blk. 24 ..... Drilling, 1,800 ft.
Murchison & Fain's No. 1 Close, Sec. 77, Blk. 23 ..... Spudding.
J. J. Rock Co.'s No. 1 T. C. Jones, Sec. 1, Blk. 34 ..... Fish. cas., 1,300 ft.
Scott, Allen & Bledsoe's No. 1 J. H. Jackson, Sec. 11, Blk. 27 ..... 30,000,000 ft. gas, 2,130-2,375 ft.
Smith et al's No. 1 W. J. Johnson, Sec. 88, Blk. 5-A ..... Spudded.
Smith, Brady et al's No. 1 P. J. Sorenson, Sec. 53, Blk. 4-A Drilling, 800 ft.
The Texas Company's No. 1 Smith (Lewis), Sec. 40, Blk. 24 ..... 15,000,000 ft. gas, 2,157-73 ft., sprayed 117 bbls., in 16 hrs., granite wash, 2,295-2,310 ft.
Upham Gas Co.'s No. 1 Cody, Sec. 88, Blk. 17 ..... Bad hole, loc. abnd.
Upham Gas Co.'s No. 1 Alexander, Sec. 92, Blk. 17 ..... Rigged up, S.D.
Upham Gas Co.'s No. 1 Griswald, Sec. 1, Blk. 24 ..... Rig, S.D.
E. L. Woodley, Jr.'s No. 1 Woodley, Sr., Sec. 13, Blk. 5-A .. S.D., 1,800 ft.
Vaughn et al's No. 1 O'Gorman, Sec. 83, Blk. 17 ..... Fishing, 1,180 ft.
World Oil Co.'s No. 1 Jackson, Sec. 11, Blk. 27 ..... 5,000,000 ft. gas, 2,186 ft., run. 6-in., T.D., 2,200 ft.

Abbreviations—Loc., location; C.O., cleaning out; S.D., shut down; U.R., underreaming; S.R., straightreaming; T.D., total depth; ft., feet; Sur., survey.

COAL SITUATION IS IMPORTANT TO REFINERS

(Continued from Page 38)

Rocky Mountains have increased since the middle of summer, they are at this time less than last year, according to Government data. Considering this and all other factors, there seems to be no reason why refiners and distributors of all grades of fuel oils and distillates should not be in a position to take advantage of the situation created by the higher coal prices.

Adding 50 per cent or more to the cost of coal at the mines of course means a large increase in the price which will be asked the coal consumers. Coming at this time of the year it will undoubtedly cause many consumers to look with favor on oil products who otherwise would have continued to use coal.

Effect on Gasoline

It might be argued by some that higher fuel prices at this time would do more harm than good to the oil business generally. This attitude is based on the contention that refiners will run more crude to their stills in order to get the fuel oil and will at the same time add to the gasoline production at a season when production always exceeds consumption and force further declines in gasoline prices.

In the days of low crude prices with skimming plants this apprehension might have been justified. However, cracking processes have changed this situation. Now an advance in fuel prices has the same effect as an advance in crude prices for the reason that more and more gasoline is being obtained from what was formerly sold as fuel oil. Leaders of the industry during the past three years have often explained this situation by pointing out how the value of crude oil is largely dependent on the fuel oil market.

Should fuel oil prices be advanced at this time it is probable with the low gasoline prices now prevailing that many refiners would change both their skimming and cracking operations in order to obtain more fuel oils and distillates. This would automatically reduce the gasoline output and aid in creating a relative situation between supply and demand which would cause gasoline prices to advance.

NORTH TEXAS MARKET HELPED BY EXPORTS

WICHITA FALLS, Tex., Nov. 15.—Export buyers played the Good Samaritan to north Texas refiners the past week. Placing orders for between 3,500,000 and 4,000,000 gallons of 64-66 375 gasoline these purchasers apparently cleared the market of this product and left the refiners in a fairly good position so far as this product is concerned for the remainder of the month.

This material was purchased by three large export companies on a basis of 10 and 10⅛ cents but a large marketing company was in the market Monday for a reported 100 cars for shipment the remainder of the year and was unable to cover at a price of 10¼ cents.

Practically all north Texas refiners are sold up for at least a month on the 64-66 375 gasoline which is reflected in a slightly better tone in other gasolines, although the demand for U. S. Motor (58-60 437) material and lower gravities continues sluggish. Refiners had difficulty in moving their gasoline at 9 cents.

In addition to the gasoline purchasers, the export buyers took up more than 500,000 gallons of kerosene, this being mostly 41-43 prime white material. This order was placed at 6 cents but the water white product now is being held at 6¼ to 6½ cents.

Natural gasolines continued firm during the week with the demand sufficient to take care of all the available supply. Prices Monday were unchanged over the week previous, except possibly Grade C, little of which was obtainable under 8¾ cents.

Fuel oil, gas oil and distillates showed little change. Fuel oil prices Monday were being shaded from some sources but the average price ruled at $1.50.

TO BALK PAY ROLL ROBBERS

BATON ROUGE, La., Nov. 13.—As a precautionary measure against pay roll robberies Standard Oil Co. of Louisiana, will immediately start paying all employes by check. Formerly most employes were paid cash. Approximately 15,000 checks will be drawn each pay day.

Tough Paints *for* Tough Jobs!

IN no place does paint meet harder demands or confront more severe conditions of service than in the oil and gas fields.

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Of the same heavy construction as our regular drilling derricks, the Emsco "Dual" can easily be converted to a pumping rig and the drilling section utilized on another location. Later the original pumping derrick can be re-converted back to a drilling rig if desired. Built in 114'-84' and 122'-84' sizes. Write for complete information and specifications.

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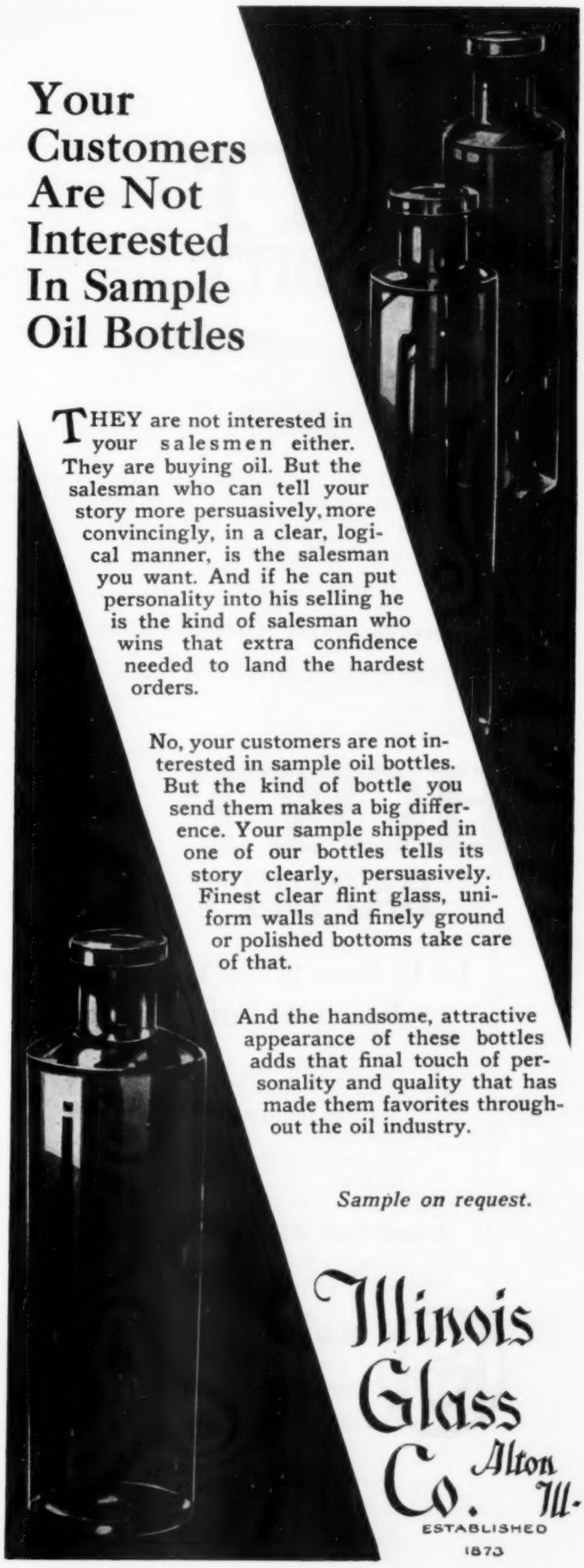
The "Emsco" 84' Pumping Derrick lowered to position, showing lower sections of 122' derrick ready for dismantling and removal to new drilling location.

GROSS PRODUCTION FOR THIRD QUARTER GAINS

(Continued from Page 88)

Hamilton, W. R., Dewey	972
Hamon, Jake L., estate, Ardmore	8,080
Hamon & Colcord, Oklahoma City	12,435
Hanbury, Harry, Duncan	1,287
Hancock, N. M., Shreveport, La.	219
Hancock, W. E., Tulsa	99
Haner, J. L., Muskogee	136
Haney & H. C. Ewers & Sons, Peru Kans.	111
Hannis Oil Co., Tulsa	139
Hansen Oil Co., Tulsa	8,096
Harland Oil Co., Wolco	23,605
Harmon, C. C., Nowata	2,056
Harmon, W. J., et al, Okmulgee	2,134
Harold Petroleum Co., Blackwell	21,661
Harrington, Lillian F., No. 4, Tulsa	318
Harrington, W. M., Marietta, Ohio	135
Harrington, W. J., Coffeyville, Kans.	2,629
Harris & Haun, Inc., Blackwell	6,936
Harris-Hays Co., Okmulgee	1,359
Harris-Strawn Oil Co., Ardmore	3,236
Hartman, Joseph, Pittsburgh, Pa.	492
Harwell, E. P., Tulsa	4,102
Hartz, Ben, Baltimore, Md.	368
Haskell, F. K., Bartlesville	166
Haskell, F. K., trustee, Bartlesville	4,563
Hastings, W. T., Marietta, Ohio	429
Hatch, G. W., Nowata	142
Haury-Manahan & Co., Enid	744
Hayden, John F., Tulsa	881
Hayden, Hayward, Tulsa	492
Hayes, Elizabeth R. Crockett, Oklahoma City	98,389
Hayner Petroleum Co., Tulsa	776
Hays Oil Co., The, Oil City, Pa.	585
Hazlett, A. G., Okmulgee	1,550
Hazlett, Bradford & Frazier Bros., Eldorado, Kans.	1,898
H. C. W. Oil Co., Chelsea	479
Healdton Oil & Gas Co., Enid	43,886
Healdton Oil Fields Oil Co., Fort Worth, Tex.	1,043
Heggem & Davis, Tulsa	1,021
Helena Oil Co., Tulsa	389
Henderson Co., The, Tulsa	226
Henderson & Holden, Eldorado, Kans.	738
Hennessey, J. E., Okmulgee	1,364
Hennessey, J. E. and Ella, Okmulgee	167
Henry, J. W., Tulsa	6,269
Henton, E. L., et al, Chelsea	1,952
Henton & Weible, Chelsea	410
Herbert Oil Co., Fort Worth, Tex.	5,806
Hertzel, F. E., Warren, Pa.	1,733
Hewitt Mineral Trust, Ardmore	984
Hibbard, S. B., S. S. Glascock and J. R. Hammond, trustees, Kansas City, Mo.	475
Hicknernell, G. W., Taft, Calif.	741
Higgins, J. R., Tulsa	231
Hightower, W. E., trustee, Tulsa	19,566
Highway Oil Ref. Corp., Tulsa	2,480
Hillside Oil Co., Tulsa	4,847
Hilltop Oil Trust, Ardmore	2,790
Hinerman & Marshall, Amarillo, Tex.	4,060
Hinkle, Fitzgerald & Westheimer, Ardmore	3,172
Hippodrome Oil Co., Tulsa	563
Hiram Oil & Gas Co., Kellyville	910
Hivick, J. P. and L. C., Ardmore	316
Hivick, L. C., Oklahoma City	1,465
Hockensmith, R. A., Okmulgee	1,150
Hoge, J. B., Nowata	360
Holm, Coombs & Chapman, Bartlesville	490
Holmes, B. F., & Co., Lyons, Kans.	652
Holmes Oil Co., The, Lyons, Kans.	177
Holmes Oil Co., Tulsa	4,321
Homaokla Oil Co., Oklahoma City	82,993
Home Gas Co. of Cushing, Cushing	5,286
Hooks & Wooton, Cleveland	375
Hope Petroleum Corp., Tulsa	520
Horner, W. H., Cleveland	625
Howard, O. R., Tulsa	26,199
Houston Oil Co. of Texas, Houston, Tex.	50,367
Howard Petroleum Corp., Tulsa	1,295
Howard, Duffield & Berlin, Tulsa	5,771
Huber, Louis H., Delphos, Ohio	3,493
Huddleston, C. T., Okemah	1,225
Hudson, Grimes et al, Tulsa	480
Hughes, H. L., Cygnet, Ohio	359
Hughes, Helena L., Getta Solether, Ora Brecht, Cygnet, Ohio	228
Hughes & Schwyn, Cygnet, Ohio	328
Hughes-Stone Co., The, Tulsa	2,193
Hulen, H. E., Bartlesville	703
Hulings, F. W., Harlingen, Tex.	310
Hulings, F. W., trustee, Harlingen, Tex.	117
Hulings, F. W., & D. M. Smith, trustee, Okmulgee	341
Hulings, M. C., Tulsa	167
Hull, J. A., Tulsa	167
Hull, J. A., Co., Tulsa	3,215
Humble Oil & Refining Co., Houston, Tex.	317,854
Hummel, Sadie L., Chelsea	208
Humphreys, L. L., Duncan	980
Hunt & Grastorf, Colorado Springs, Colo.	1,194
Hurdle, H. J., Mounds	170
Hutchison, E. A., Bartlesville	86
Hutchison, E. A., trustee, Bartlesville	429
Hutchinson, E. A., Oil Co., Muskogee	522
Hutchinson, L. J., Haskell	194
Hyer, F. R., Okmulgee	925
I	
Ice Drilling Co., Tulsa	787
Ideal Oil & Gas Co., Ardmore	1,595
Illata Oil Co., Vinita	40
Illinois Oil Co., Chicago, Ill.	1,421
Illinois-Okla. Petroleum Corp., Duncan	3,704
Imo Oil & Gas Co., Covington	19,825
Independence Oil Co., Bartlesville	1,360
Independent Oil & Gas Co., Tulsa	1,163,826
Indiahoma Corp., The, Okmulgee	446
Indian Territory Illuminating Oil Co., Bartlesville	180,740
Indiana Oil & Gas Co., Tulsa	31,895
Interocean Oil Co., Tulsa	198,085
Interstate Oil & Gas Co., Bartlesville	3,948
Iowa Oil & Refining Co., Hawarden, Iowa	1,284
Ireland, O. M., Saulpa	23,934
Iron Mountain Oil Co., Tulsa	42,368
Irwin, John S., Bartlesville	550
Irwin, J. M., and D. G. Maxwell, Bartlesville	370
Irwin-Miller, Bartlesville	1,066
I. X. L. Drilling Co., Tulsa	18
J	
Jackson, L. B. Sapulpa	608
Jackson, S. G., and W. S. Cline, Kaw	1,182
Jackson-Nolan, Sapulpa	820
Jackson, Wise & Markham, Sapulpa	3,522
Jackson-Wise & Bovaird, Sapulpa	2,112
Jackson, Wise & Snedden, Sapulpa	1,592
Jacobs, Leo, St. Louis, Mo.	7,728
Jacques, Denton, Arkansas City, Kans.	725
Jacques, Effie M., Arkansas City, Kans.	725
Jane Oil Co., Oil City, Pa.	4,380
Jankowsky, Mose, Tulsa	1,491
Jeff Oil Co., Chelsea	289
Jeffrey, E. B., trustee, Oklahoma City	1,395
Jellinek, John, Nowata	276
Jennie Oil Co., Chelsea	134
Jennings, R. G., Pittsburgh, Pa.	15,637
Jennings, E. H., Bros. Co., Pittsburgh, Pa.	2,511
Jens Marie Oil Co., Ponca City, Okla.	1,261
Jenson, H. A., Tulsa	399
Jensen, P. W., Chelsea	236
Jim Glenn Oil Co., Tulsa	2,869
Joels, Sam and Abe Goldstein, Tulsa	6,152
Johneda Oil Co., Tulsa	10,337
Johnson Oil & Refining Co., Chicago	6,863
Johnson Farm Oil Co., Warren, Pa.	708
Johnston, T. A., & Co., Okmulgee	4,660
Jones, A. F. and I. D. Adamson, Dewey	88
Jones, R. C., & Co., Inc., Cushing	4,124
Josey Oil Co., Tulsa	465,251
Judson Oil Co. (H. T. Gilbert, receiver), Tulsa	1,818
K	
Kahle, Clyde, Cyril	2,435
Kano Oil Co., Nowata	173
Kans.-Okla. Cons. Oil Co., Minneapolis, Minn.	919
Karcher & Henry, Tulsa	664
Kashowa Oil Co., Independence, Kans.	1,659
Katz, B. S., Ada	925
Kay & Kiowa Oil Co., Tulsa	23,814
Keener Oil & Gas Co., Tulsa	52,520
Keeter, J. A., Tampa	501
Keith, J. H., Coffeyville, Kans.	374
Kell, Frank, and Edward Schlaffke, Electra, Tex.	3,116
Kelly, Thomas C., Sapulpa	495
Kelso, J. W., Pawhuska	322
Kennedy, J. L., and S. G., Tulsa	1,963
Kerull Oil Co., Tulsa	1,035
Kessler, F. W., and R. B., Tulsa	8,298
Kewanee Oil & Gas Co., Titusville	266,738
Kawfield Oil Co. and Illinois Refining Co., Slick	10,092
Keystone Oil & Gas Co., Independence, Kans.	137
King, C. A., trustee, Tulsa	138
King, C. A., and Fred Gumm, Tulsa	269
King, Frank, Tulsa	222
King, F., et al, Okmulgee	845
King, John, receiver, Tulsa	19,412
King, John, receiver, Tulsa	2,282
King Trading Co., Tulsa, Okla.	1,193
King & Harrington, Tulsa	231
Kingsbury, C. W., Tulsa	285
Kingsbury, C. W., and George Kinney, Sand Springs	87
Kingsbury, C. W., George Kinney and C. F. Tingley, San Springs	1,437
Kingwood Oil Co., Okmulgee	80,690
Kinnear Drilling Co., Tulsa	148
Kinney, George, Tulsa	285
Kinney, George, trustee, Tulsa	353
Kinney-Wood-McIntyre, Tulsa	135
Kirk Oil Co., Ardmore	17,471
Kistler, Ernest L., Tulsa	2,789
Kistler Petroleum Co., Tulsa	14,422
Knox Petroleum Co., Ardmore	22,575
Knupp Oil Co., Warren, Pa.	4,405
Knupp Oil Corp., Warren, Pa., and Higrade Petroleum & Gasoline Co., New York, N. Y.	590
Koberling Oil Co., Tulsa	1,021
Kohlenberg, W. C., Sapulpa	4,335
Kodi Oil Co., Warren, Pa.	1,005
Knaell, J. C., Tulsa	258
Kracer, Oliver A., Bartlesville	1,786
Kroh, Lafayette, Bartlesville	252
Kuhns, James, estate, Tulsa	744
Kunkel, J. C., Jr., Tulsa	750
Kuper, John C., Caney	442
L	
Lackawanna Prod. & Ref. Co., Scranton, Pa.	521
Lahman-Bell Oil Co., Dewey	528
Lancaster & Grimes, Tulsa	347
Lambert, E. J., Tulsa	1,499
Lambert Oil & Gas Co., Tulsa	7,174
Lamberton, J. C., Tulsa	985
Landon, A. M., Independence, Kans.	14,626
Lane Oil Prod. Co., Chicago, Ill.	2,469
Lane & Wasson Co., Ardmore	2,284
Large Oil Co., Bartlesville	4,884
Larkin, J. J., Tulsa	497
Larkin Oil Co., Tulsa	27
Larkin & Reynolds, Bartlesville	3,704
Lathrop, Joe, Ardmore	1,112
Lawson, E. B., Nowata	6,076
Lawson & Griffin Prod. Co., Nowata	191
Lawson & Whitehill, Nowata	2,171
Lawton Corp., Oklahoma City	2,342
Lea Drilling Co., Tulsa	398
Leahy Oil Co., Tulsa	1,296
Leathers, E. H., Tulsa	324
Lebow, C. H., Tulsa	3,472
Lee, Frank W., Tulsa	347
Le Fever, M. M., Marietta, Ohio	468
Leonard, J. M., Joplin	1,085
Leonard, Mabel F., Tulsa	2,510
Leonard Petroleum Co., Washington, Pa.	798
Leopold & Brett, Muskogee	134
Lesh, Eula, Guthrie	369
Lesh Brothers Oil Co., Duncan	3,260
Lessley, W. T., Glasgow, Mo.	335
Letson Oil Co., Dewey	532
Levant Oil Co., Ardmore	2,642
Levy, I. B., trustee, Oklahoma City	4,672
Lewis-Clarke Petroleum Co., Oklahoma City	5,349
Lewis Oil Co., Pittsburgh, Pa.	261,749
Liberty Oil & Gas Co., Warren, Pa.	1,792
Liebert, Al, Coffeyville, Kans.	429



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HOYT METAL CO.
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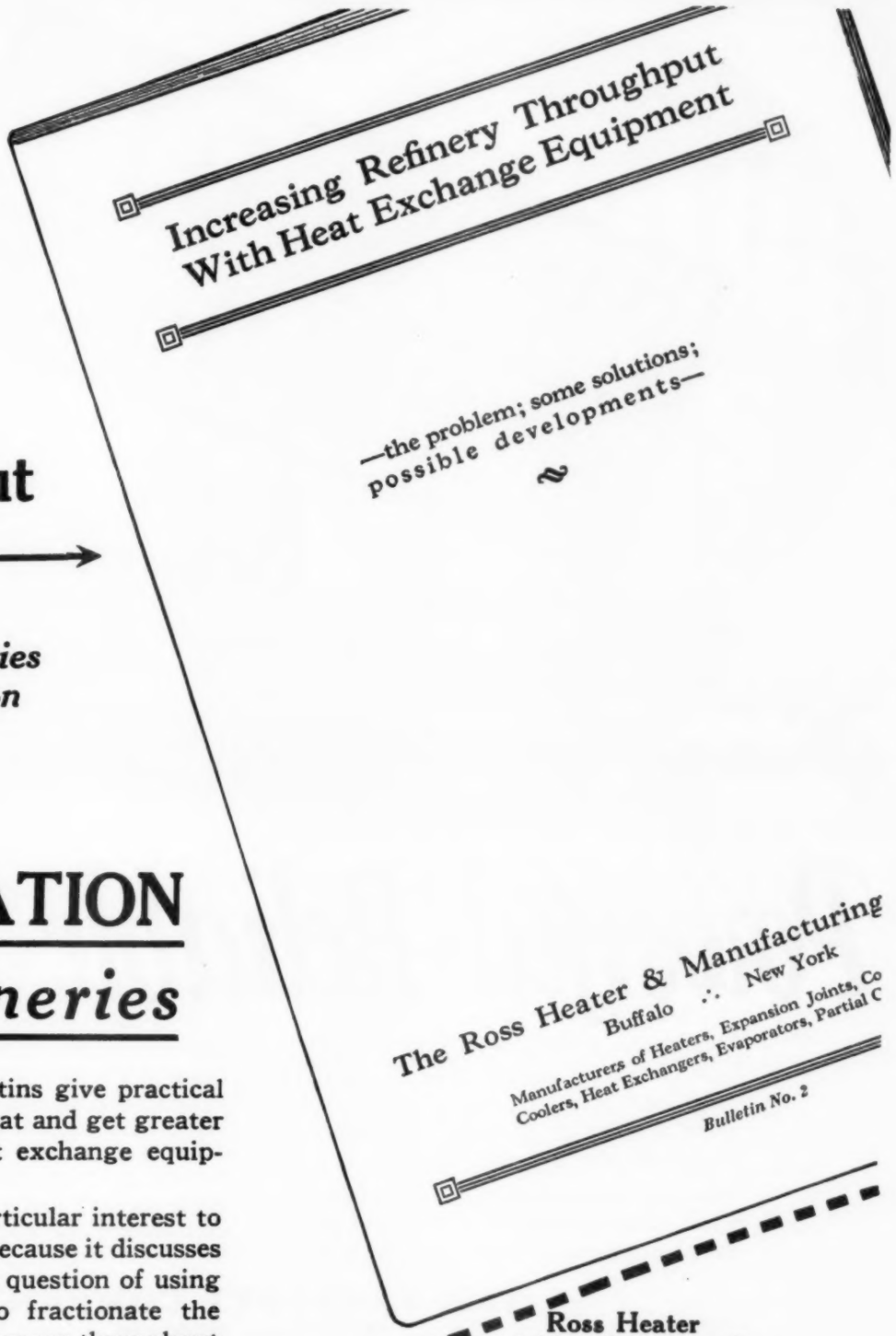
Kirk Oil Co., Ardmore	1
Lightning Creek Oil Co., Wellsville, N. Y.	431
Lima Oil & Gas Co., Bartlesville	2,982
Lincoln Oil & Gas Co., Tulsa	2,446
Link Oil Co., The, Tulsa	15,694
Lippa, Arthur, Tulsa	91
Little Ed Oil Co., The, Tulsa	7,367
Little Fay Oil Co., Tulsa	17,354
Loar, W. N., & Co., Okmulgee	2,391
Lomore Oil Co., Ardmore	2,068
Lone Star Gas Co., Dallas, Tex.	34,094
Lorbeer, C. C., Cleveland	375
Louisiana Oil Refining Corp., Shreveport, La.	8,215
Louvain Oil Co., Bartlesville	1,423
Love, L. H., Ardmore	2,135
Lovell, J. A., Marietta, Ohio	777
Lovell, Dot L., Marietta, Ohio	1,466
Lovet Oil Co., Nowata	1,294
Lowrie & Barnes, Robinson, Ill.	1,316
Lowry Oil Corp., Wichita Falls, Tex.	2,197
Lowry Burns Corp., Wichita Falls, Tex.	530
Lucky Leaf Oil & Gas Co., Blackwell	1,477
Lucky Scott Oil & Gas Co., Independence, Kans.	652
Ludey, Charles A., Marietta, Ohio	2,612
Ludowici-Celadon Co., Chicago, Ill.	2,390
Lutner, Thomas R., Lawton, Okla.	510
Lynch, C. B., & Co., Tulsa	720
Lynch & Baker, Tulsa	1,616
Lyons Petroleum Co., Denver, Colo.	11,034
Lyon, Bert W., and Mary J., Los Gatos, Calif.	639
Mc	
McAllister, C. T., Sapulpa	80
McBride, W. C., Inc., St. Louis, Mo.	7,822
McClintock, H. H., et al, Bartlesville	1,534
McClintock, R. Otis, Tulsa	460
McCollum, H. D., trustee, Ardmore	4,054
McConnell, Carol S., Tulsa	895
McConnell, Grace M., Okmulgee	92
McCormick, J. A., Muskogee	587
McCormick, J. A., trustee, Muskogee	1,086
McCormick, Matt, Nowata	114
McDivitt, James, Owasso	205
McDonald, J. H., Muskogee	375
McFarlin & Chapman, Tulsa	275
McGill, A. L., Bartlesville	1,550
McGill, H. R., and Ruth Gilbert, Tulsa	1,379
McGill, J. R., Borger, Tex.	60
McGraw, J. J., Tulsa	979
McGraw-Baughman-Bearly Lumber Co., Tulsa	122
McGuire, F. H., Guthrie	1,382
McKeon, P. G., Tulsa	648
McKes Oil & Gas Co., Ardmore	1,757
McKinley, George J., Independence, Kans.	70
McLane Farm Oil Co., Tulsa	922
McMahon, C. L., Inc., Tulsa	53,269
McMahon, J. L., Wichita Falls, Tex.	96
McMan Oil & Gas Co., Tulsa	109,685
McMechan, W. F., Tulsa	1,045
McMillan, W. J., Cleveland	256
McNutt, J. P., and A. L. Davis, Morris	204
McQueen, I. R., Oklahoma City	9,989
McSpadden, T. R., Nowata	172
M	
Mack Oil & Gas Co., Bartlesville	568
Madden & Madden, Tulsa	7,422
Magee & Stipe, Electra, Tex.	1,332
Magnolia Petroleum Co., Dallas, Tex.	2,804,452
Maiers, J. F., Tulsa	602
Maiers, W. D., and J. F., Tulsa	584
Mainwaring, W. H., Tulsa	105
Maire Brothers & Ebling, Bartlesville	2,221
Malernee Oil Co., Walters	11,219
Mallory, S. T., & Co., Tulsa	156
Malloy, Pat, Tulsa	290
Mancil, H. E., Bartlesville	1,864
Mancil & Ayling, Bartlesville	1,588
Margay Oil Corp., Tulsa	85,345
Markham, John H., Jr., Tulsa	38,899
Marietta Oil Co., Marietta, Ohio	1,704
Marileen Oil & Gas Co., Blackwell	8,389
Marland Oil Co., Ponca City	1,053,166
Marr, D. T., Tulsa	4,692
Marshall Oil Co., Tulsa	140
Marshall Oil Co., Nowata	416
Martin, Emma L., Fresno, Calif.	75
Martin, L. J., Tulsa	315
Martin, R. B., receiver, Tulsa	701
Marshall, Silas, Skiatook	356
Martin, S. A., Oil & Gas Co., Chelsea, Okla.	628
Mason, D. B., Tulsa	36,326
Mason, Allen estate and N. C. Fassett, Elmira, N. Y.	167
Mason-Beauchamp Oil Co., Tulsa	56
Massey, Alexander, Kansas City, Mo.	697
Matteson, Charles D, St. Paul, Minn.	421
Maxson, E. E., Owasso	1,478
Maxwell, D. G., Bartlesville	1,340
Maxwell, D. G., and Patchen estate, Bartlesville	325
Maxwell, D. G., and J. W. Thompson, Bartlesville	772
Meadors, Frank, Jr., Wetumka	534
Mechling & Berlin, Tulsa	672
Mechling, Berlin & McCurry, Tulsa	1,074
Meeks, A. M., Tulsa	648
Mentzer, Emma M., Pawnee	420
Merrick, F. W., Ardmore	19,372
Merrick, Ward S., Ardmore	1,955
Merrick, Ward, et al, Ardmore	1,054
Merrick & Coe, trustees, Ardmore	16,958
Mexada Oil Co., Ardmore	2,003
Mickleson, D. D., Winfield, Kans.	1,231
Midco Oil Corp., Tulsa	33,080
Mid-Continent Petroleum Corp., Tulsa	1,575,812
Midget Oil & Gas Co., Republic, Mo.	1,986
Mid-Kansas Oil & Gas Co., Findlay, Ohio	295,753
Midland Oil Co., Bartlesville	76,985
Midland Sec. Co., Tulsa	7,343
Miller, George L., Marland	395
Minnehoma Oil & Gas Co., Tulsa	110,930
Minshall, E. R., Tulsa	6,277
Minshall, E. R., & Co., Tulsa	3,286
Minshall Oil & Gas Co., Tulsa	2,125
Misener, F. D., Tulsa	15,188
Misener, Lillian J., Tulsa	1,325
Mitchell, E. D., and C. D. Jenal, Tulsa	259
Mitchell, Mark D., Independence, Kans.	874
Mitchell, W. A., Bartlesville	240
Mitchell & Murrow, Independence, Kans.	194
Moellendick, M. J., Wichita, Kans.	110
Mohan Oil Co., Tulsa	15,164
Mohawk Petroleum Co., Tulsa	1,802
Monroe, James E., trustee, Tulsa	1,699
Monte Cristo Oil Co., Tulsa	326
Montezuma Oil Co., Tulsa	740
Moon Gasoline Co., Tulsa	134
Moore, Cline, estate, Tulsa	19,094
Moore, Frank L., Tulsa	2,714
Moore, Genevieve E., Tulsa	1,325
Moran, J. L., Bartlesville	960
Moran, M., Tulsa	688
Morey, E. E., Tulsa	159
Morrison, James B., Tulsa	464
Morrison, John P., & Co., Tulsa	367
Morrison & Jackson, Sapulpa	3,656
Morton & Co., Bartlesville	15,945
Moseley, C. F., Bartlesville	3,975
Moseley, W. H., Bartlesville	1,530
Mountain State Oil Co., Bartlesville	38,085
M. T. C. Oil & Gas Co., Tulsa	83,927
Mudge Oil Co., Pittsburgh, Pa.	20,920
Mul-Berry Oil Co., Cushing	33,602
Mullendore, Bessie, Cleveland	220
Mullendore, E. C., Cleveland	115
Mullendore, R. F., Hominy	275
Murphy Oil Co. of Pa., Philadelphia, Pa.	1,776
Murry, John Y., trustee, Tulsa	302
Muskogee Oil Corp., Muskogee	290
Myers, C. M., Tulsa	988
Myers & Twichell, Okmulgee	5,860
Myers Oil & Gas Co., Pittsburgh	300
N	
Nadine Oil Co., Cleveland	2,351
Nadle, I., Tulsa	789
Nadle, Sophia, Tulsa	2,824
Nancy Oil Co., Sapulpa	472
National Oil & Development Co., Tulsa	13,105
National Refining Co., The, Cleveland, Ohio	200
National Supply Co., Midwest, Independence, Kans.	32
National Union Oil & Gas Co., Blackwell	7,624
Nelson, F. M., New York, N. Y.	13,394
Neubeck, W. L., Marietta, Ohio	350
Neustadt, Walter, Ardmore	521
New England Oil & Pipe line Co., Boston, Mass.	95,339
New Haven Oil Co., Bartlesville	844
New Pocahontas Oil & Gas Co., Oklahoma City	620
Newton & Pinson, Coweta	150
Nicaragua Oil Co., Freeport, Ill.	1,500
Ninety-Nine Oil Co., Tulsa	767
Night & Day Oil Co., Lawton	276
Noble, Charles F., Tulsa	18,872
Noble Oil & Gas Co., Tulsa	6,342
Noble-Olson et al, Ardmore	4,004
Noble, Lloyd, and A. O. Olson, Ardmore	2,498
Northrop, Mary Sells, Tulsa	162
Norris, W. C., Tulsa	17,250
Norwood Oil Co., Pittsburgh, Pa.	9,709
Nowata Oil & Refining Co., Tulsa	17,267
Number One Oil Co. (N. T. Gilbert and Joseph Glass, receivers), Tulsa	6,248
O	
Obins & Weber, Bartlesville	5,511
O'Brien, P. J., Tulsa	640
O'Connor, Martin, Portville, N. Y.	748
Octo Oil Co., Bartlesville	288
Oglesby, Robert, Tulsa	4,482
Ohio-Osage Oil Co., Tulsa	4,592
O'Hornett, C. J., Henryetta	975
Oil State Petroleum Co., Enid	11,046
Okla-Crude Oil Co., Oklahoma City	65
Oklaken Oil Co., Binghamton, N. Y.	1,040
Oklarado Oil Co., Okmulgee	1,011
Oklausa Oil Co., Jackson, Tenn.	166
Oklavania Oil Co., Tulsa	30,939
Okla-Penn Oil Co., Bartlesville	1,176
Oklana Oil Co., Tulsa	587
Okmulgee Oil & Development Co., Okmulgee	3,772
Oko Oil & Gas Co., The, Lima, Ohio	1,846
Olean Petroleum Co., Bristow	954
Oliphant Petroleum Co. (N. T. Gilbert and Joseph Glass, receivers), Tulsa	1,594
Omega Oil Corp, Shreveport	448
Ona Oil Co., Blackwell	5,039
Oneida Petroleum Co., Warren	3,788
O'Reilly, J. T., and Emma, Tulsa	376
O'Rourke, Ed, estate, Tulsa	1,277
O'Rourke, E. W., Tulsa	1,277
O'Rourke, T. J., Tulsa	1,277
O'Rourk Oil Co., Bristow, Okla.	660
Osage Dev. Co., Bartlesville	7,578
Osage Gas Prod. Co., Independence, Kans.	790
Osage Prod. & Ref. Co., Tulsa	3,168
Oswego Petroleum Co. et al, Tulsa	1,369
Overton, C. H. estate, Tulsa	609
Owens, D. R., Chandler	5,622
Owl Oil Co., Chicago, Ill.	13,014
Owsley, D. L., Tulsa	1,439
P	
Page, Chas., C. W. Kingsbury and George Kinney, Sand Springs	1,145
Page, Chas., trustee, Tulsa	5,662
Page, L. R., Tulsa	1,474
Painter, J. W., Nowata	301
Painter, Stager & Higgins, Nowata	24
Panama Oil & Gas Co., Holdenville	366
Panther Oil & Dev. Co., Bartlesville	154
Papoose Oil Co., Tulsa	17,847
Papoose Oil Co., Houston, Tex.	47,366
Paraffine Oil Co., The, Houston, Tex.	8,430
Parker, D. F., trustee, Okmulgee	376
Parmenter, W. L., No. 2, Lima, Ohio	299
Parrish Oil Co. & Reed, Nowata	2,210
Patsy Oil & Gas Co., Ardmore	1,814
Patterson & Swain, Bartlesville	314
Pattison Oil Co., Tulsa	1,937
Pattrell, E., Bartlesville	600
Pauline Oil & Gas Co., Oklahoma City	6,210
Pawnee-Osage Oil Co., Tulsa	2,180
Paxton Oil & Gas Co., Tulsa	384
Pelham Petroleum Co., Tulsa	1,178
Penmar Oil & Gas Co., Okmulgee	6,299
Pennok Oil Corp., Tulsa	83,238
Penna. Oil Corp., Warren, Pa.	322
Penrod & Thompson, Okmulgee	1,772
Penrod, Thompson et al, Okmulgee	1,478
Pensy Oil Corp., Tulsa	211
Perkins, F. E., Tulsa	950
Perkins, J. J., Wichita Falls, Tex.	1,663
Perrine, Irving, and W. C. Kite, Oklahoma City	168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Peters-Leahy Oil Co., Tulsa 584
Peterson, S. F., Tulsa 1,071
Petroleum Co., The, Tulsa 6,581
Petroleum Co. and M. H. Mosier, Tulsa 17,445
Petroleum Exploration, Sistersville, W. Va. 179
Petroleum Extraction Co., New London, Conn. 601
Pettigrove, A. H., Dewey 1,250
Phillips Oil Co., Chelsea 2,672
Phillips Petroleum Co., Bartlesville 2,333,668
Phillips & Milam, Chelsea 24,961
Phoenix Oil Co., Okmulgee 175
Pilgrim Petroleum Co., Wichita Falls, Tex. 8,262
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Pioneer Petroleum Co., Tulsa 108,303
Plains Petroleum Corp. (N. T. Gilbert and Joseph Glass, receivers), Tulsa 18,816
Plover Drilling Co., Bartlesville.. 19,092
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Pouder & Pomeroy, Tulsa 640
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Reed & Harmon, Nowata 5,757
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Sheers, M. E., Copan 422
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Slick, T. B., Oklahoma City 377,453
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Smedley, A. W., Youngstown, Ohio 250
Smith, Carl D., Agra 1,637
Smith, C. T., trustee, Okmulgee... 2,938
Smith, D. M., Okmulgee 1,232
Smith, G. J., Tulsa 18,727
Smith, M. T., & Son, Ardmore..... 8,234
Smith, P. C., Tulsa 1,745
Smith, Paul W., Tulsa 352
Smith, Samuel H., Oil Co., Tulsa.. 202
Smith, T. K., Tulsa 2,866
Smith, Will H., Ardmore 2,866
Smith, Will H., trustee, Ardmore. 38,608
Smith & Daugherty, Nowata..... 162
Smith-Hanlon, Inc., Tulsa 1,762
Smith, Lee, Oil & Gas Co., Durant 795
Snowden-Danner et al, Tulsa 2,964
Snowden & McSweeney Co., New York, N. Y. 40,984
Snowden & McSweeney Co. and R. G. Jennings, New York, N. Y.... 1,346
Southern Oil & Gas Co., Coffeyville, Kans. 2,277
Southwestern Oil Fields Co., Tulsa 11,488
Southwestern Oil, Gas & Coal Co., Independence, Kans. 1,761
Southwestern Petroleum Co., Tulsa 148,647
Southwestern Petroleum Co., P. H. Lord, estate, Chas. S. and Henry C. Lord, Tulsa 4,672
Southwestern Petroleum Co., J. A. and Dot L. Lovell and W. T. Hastings, Tulsa 1,070
Spangler, C. W., Tulsa 766
Sparks, V. K., Tulsa 482
Speary Brothers & Mills, Marietta, Ohio 9,532
Sperata Oil Co., Bartlesville 631
Spiers, A. J., Jenks 312
Sprague Oil Co., Ardmore 4,248
Spring Oil Co., Independence, Kans. 2,037
Stager, J. A., Nowata 1,741
Stager & Cornelius, Nowata 378
Stager & Higgins, Nowata 45
Stake Oil Co., Independence, Kans. 569
Standard Rail & Steel Co., Tulsa.. 1,891
Standeven, H. L., and James S. Terry, Tulsa 1,218
Standish Oil Co., Bartlesville..... 6,464
Starr, John C., and Riley Oil Co., Vinita 1,417
Stauffer, M. T., agent, Tulsa 40
Stearns, Florence J., Okmulgee .. 1,176
Stein, P. H., and M. S. Mussellem, Muskogee 711
Stephens, B. A., trustee, Wagoner 942
Stephens, C. S., Coffeyville, Kans. 206
Sterling Oil & Gas Co., Tulsa..... 23,142
Sterling Gas & Oil Co., Columbus, Ohio 531
Stewart, C. E., Independence, Kans. 393
Steyner Oil Co., Bartlesville 14,276
Stine, J. C., Tulsa 578
Stine, J. C., et al, Tulsa 2,018
Stoddard, C. H., Tulsa 941
Stogsdill, L. H., trustee, Tulsa ... 752
Stone, M. R., trustee, Hawarden, Iowa 514
Stoner, Brothers, Tulsa 1,011
Stout, J. M., trustee, Muskogee... 850
Stout, W. E., Parkersburg, W. Va.. 222
Straight, Preston, et al, Bartlesville 1,297
Striker, John H., Tulsa 526
Strimple, J. A., Janesville, Wis.... 558
Sturdevant, W. E., Okmulgee 1,128
Sturm, H. L., Ardmore 780
Sturm Drilling Co., Ardmore 5,505
Summit Oil Co. et al, Bartlesville.. 409
Sunbeam Petroleum Co., Tulsa ... 1,504
Sunday, W. E., Claremore 525

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Sunray Oil Corp.	55,566
Superior Oil Corp., Lexington, Ky.	59,315
Suppes, G. B., R. E. and C. E., Tulsa	3,118
Sure Oil Corp. (N. T. Gilbert, receiver), Tulsa	4,969
Surpass Petroleum Co., Butler, Pa.	794
Swanson, John, estate, Fred Swanson, Chanute, Kans., and Dan Kelly, Marietta, Ohio	466
Swastika Oil Corp., The, Tulsa	192
Sweeney, J. F. & Co., Tulsa	6,337
Swindler, J. A., Muskogee	3,250
Swindler, J. A., & Son, Muskogee	24,953
T	
Taft Oil Co., The, Independence, Kans.	2,901
Terhune, I. H., Tulsa	564
Terrell Co., The, Terrell, Tex.	4,952
Terriokla Oil & Gas Co., The, Muskogee	86
Terwilliger, C. H., Tulsa	987
Test Oil Co., Bradford, Pa.	4,298
Texas Company, The, Production Dept., Tulsa	945,369
Texas-Okla. Investment Co., Independence, Kans.	1,834
Texas Pacific Coal & Oil Co., Thurber, Tex.	110,825
Texokan Production Co., The, Coffeyville, Kans.	93
Tracker, John H., Kansas City, Mo.	548
32nd Oil & Gas Co., Ardmore	1,824
Thlocco Oil Co., The, Tulsa	15,624
Thompson Oil & Gas Co., Tulsa	6,262
Thompson, J. N., Tulsa	120
Thompson, Milton, Cushing	206
Thompson, R. D., trustee, Okmulgee	914
Thompson, R. D., et al, Okmulgee	315
Thompson & Jordan, Okmulgee	62
Thompson, Jordan, et al, Okmulgee	2,067
Thompson & Welder, Cleveland	2,758
Thurmand, T. A., Ardmore	2,135
Thurvan Oil Co., Bartlesville	892
Tibbens, C. G., Tulsa	228,954
Tidal Oil Co., Tulsa	467,396
Tidal Oil Co. for Cherokee Warren Oil & Gas Co., Tulsa	4,917
Tidal-Osage Oil Co., Tulsa	336,945
Tiger Petroleum Corp., Tulsa	12,907
Trainer, J. E., et al, Salem, W. Va.	306
Trainer Oil & Gas Co., Bartlesville	522
Transcontinental Oil Co., Tulsa	220,605
Travis, M. P., Tulsa	515
Traywick, N. E., Okmulgee	92
Trefts, John C., Buffalo, N. Y.	710
Troy, M. A., and G. W. Howard, Olean, N. Y.	137
Troy Oil & Gas Co., Sapulpa	4,600
Tuloma Oil Co., Tulsa	143
Turley, G. W., Oklahoma City	514
Tulsa Co., The, Tulsa	11,500
Turman Oil Co. (N. T. Gilbert and Joseph G. Glass, receivers), Tulsa	38,396
Turner, T. E. and T. C., Mounds	485
Tuttle-Keppel Oil Co., Hominy	1,011
Twichell, J. A., Okmulgee	200
Twin State Oil Co., The, Tulsa	346,649
Tyee Oil & Gas Co., Bartlesville	991
Tyler, D. M., et al, Denver	2,282
U	
Umburn, Gilla, Weleetka	447
Umburn, W. L., Weleetka	2,425
Union Oil & Mining Co., Indianapolis, Ind.	1,801
Upp, O. E., Tulsa	667
Urschel, C. F., Oklahoma City	4,222
Urschel, Flored S., Oklahoma City	4,222
Utah Oil Corp., Okmulgee	6,325
V	
Valley-Osage Oil Co., Tulsa	35,411
Vance, S. F., Tulsa	907
Van Dall, Bartlesville	1,666
Van Eman, G. L., Jennings	1,842
Van Horn, E., Chelsea	178
Van Moss Oil Co., Bartlesville	1,091
Vee Oil Co., Tulsa	212
Vensel, Elliott & Vensel, Tulsa	2,399
Verland Oil & Gas Co. (N. T. Gilbert and Joseph Glass, receivers), Tulsa	24,294
Vernon Oil & Gas Co., Blackwell	9,982
Vic Oil & Gas Co., Blackwell	3,179
Vick Oil Co., Tulsa	60
Vicmar Oil Co., Tulsa	3,785
Viersen, A. A., Okmulgee	962
Vogler, A. F., Tulsa; J. A. Lightner and John Swanson, Chanute, Kans.	396
Vowell-Jackson, Sapulpa	5,872
W	
Wade, J. E., Tulsa	738
Wah-Shah-She Oil Co., Bartlesville	6,068
Waite, C. L., Los Angeles, Calif.	3,823
Waite, Fannie C., Los Angeles, Calif.	3,823
Walda Oil & Gas Co., Carlisle, Pa.	5,888
Walker, L. D., Claremore	425
Walker, P. G., and O. K. Eysenbach, Jr., Tulsa	327
Walker Oil Co., Tulsa	1,123
Walker-Valley Oil & Gas Co., Duncan	463
Wallace, F. H., Tulsa	594
Wallace, Harold (bankrupt), Chas. S. Lynch, receiver, Ardmore	447
Wallace, Thompson, et al, Okmulgee	583
Walsh Oil Co., Tulsa	7,144
Walter, H. J., Tulsa	574
Wampum Oil Corp., Dallas, Tex.	3,934
Ward Oil & Gas Co., Tulsa	2,779
Warner-Caldwell Oil Co., Titusville, Pa.	29,091
Warner & Moyar, trustees, Titusville, Pa.	627
Wasson, W. J., Cleveland	196
Watchorn, Robert, Oklahoma City	3,794
Watchorn Oil & Gas Co., Oklahoma City	103,211
Wayne Oil Co., Tulsa	1,626
Webb, R. N., Tulsa	232
Weber, Howard, Bartlesville	1,832
Weber, Obins & Beattie, Bartlesville	586
Webster, G. W., Tulsa	2,493
Welch, F. P., Rock Island, Ill.	149
Welch Gas & Oil Co., Stillwater	524
Wells, N. D., Tulsa	1,102
Welsh, J. J., Kansas City, Mo.	1,094
Welsh, A. L., Oklahoma City	7,750
Welsh, M. P., and John and C. T. Daugherty, Nowata	285
Wentz, L. H., (oil division), Ponca City	638,912
Wentz Oil Corp., Ponca City	535
West, J. H., Tulsa	3,630
Westerly Oil Co., Bartlesville	28,988
Western American Oil Co., Bartlesville	2,782
Western Natural Gas Co., Tulsa	2,038
Western Oil Corp., Tulsa	6,916
Western States Oil & Land Co., The, Denver, Colo.	1,018
Westheimer & Daube, Ardmore	171,702
Westland Oil Corp., Tulsa	8,272
Wettack, Maud T., Nowata	1,110
White Eagle Oil & Refining Co., Kansas City, Mo.	31,276
Whitehill, B. F., Tulsa	1,801
Whitehill, Sam, Okmulgee	122
Whitehill, Donovan & Whitehill, Tulsa	765
Whitehill, Donovan, Hayden & Whitehill, Tulsa	758
Whitehill & Glass, Tulsa	744
Whitehill, Howard J., Tulsa	148
Whitehill & Lawson, Tulsa	1,832
Whitehill & Smith, Tulsa	1,319
Whitehill & Weible, Tulsa	1,586
Wickett, F. H., Shreveport, La.	1,464
Wigton & Long Co., Okmulgee	14,550
Wilcox, F. L., and George C. Schmuck, Tulsa	301
Wilcox, H. F., Oil & Gas Co., Tulsa	230,497
Wilcox, H. F.-Pampa Oil Co., Tulsa	2,322
Wilhoit, Ethel J., executrix, and R. M. Jones, trustee, Kansas City, Mo.	1,429
Wilhoit, J. C., No. 2, account, Kansas City, Mo.	977
Wineland Oil Co., Boynton	3,238
Winemiller, J. H., Tulsa	468
Winkler & McQueen, Inc., Duncan	11,836
Winona Oil Co. of Delaware, Tulsa	72,587
Wise & Jackson, Sapulpa	5,576
Wiser Oil Co., Bartlesville	81,353
Withington, Margaret M., Marietta, Ohio	141
Withington Oil Co., Dewey	1,879
Wittmer Property, trustees, Pittsburgh, Pa.	13,929
Wolfe, Frank, trustee, Tulsa	416
Wolfe Oil Corp., Bristow	5,992
Wolverine Petroleum Corp., St. Louis, Mo.	346,482
Wood, T. J., Tulsa	1,957
Wood Oil Co., Tulsa	23,526
Woodard, George E., Nowata	494
Woodard, Grace S. and Mary L., Nowata	1,125
Woodard - Burkett - Woodard, Nowata	2,112
Woodard & Woodard, Nowata	1,990
W. P. Oil & Gas Co., Cleveland	725
Wright, C. H., Tulsa	101
Wright, J. H., Sapulpa	98,346
Wright, W. T., Tulsa	840
Wrightsman Petroleum Co., Tulsa	1,012
Wylie, W. J., Bristow	1,175
Y	
Young, George L., Dewey	356
Z	
Zahn & Crawford, Tulsa	2,156
Zoch-Barnes Petroleum Corp., Tulsa	3,402
Zola Oil Co., Tulsa	20,695
Grand total	44,443,173
SUPPLEMENTAL	
Boyd, Harold, trustee, Claremore	142
Brady, E. H., Tulsa	970
Bridwell & Heydrick, Wichita Falls, Tex.	1,181
Carson, W. A., Oklahoma City	2,510
Colson Oil Co., Tulsa	20,528
Connelly, E. A., Tulsa	252
Eagle Creek Oil Co., San Francisco, Calif.	2,977
Elmer Oil Co., Elmira, N. Y.	2,205
Fagar Oil & Gas Co., The, Garber	18,104
Fuhrman Petroleum Co., Okmulgee	551
Gray Oil Co., Tulsa	19,609
Hammond, L. P., Wichita Falls, Tex.	2,931
Hilt, John H., Tulsa	359
Hilt, John, & Frank Beu, Tulsa	420
Hornecker, Henry, Tulsa	707
Hornecker & Graham, Tulsa	272
Hornecker & Hagler, Tulsa	1,648
Hornecker, Miller & Dunigan, Tulsa	205
Houston, L. N., Okmulgee	122
Invader Oil Corp., Muskogee	4,105
Irvine, James, Sapulpa	233
Johnson & Kemnitz, Ardmore	3,685
Jolly, H. L., trustee, Muskogee	792
Jolly-Ogg Oil Co., Muskogee	9,376
Jomack Oil Co., Bristow	832
Kirkwood & Kennedy, Tulsa	370
Knickerbocker Oil Co., Tulsa	2,458
Lyons, J. and L., Tulsa	1,354
McOwen, Bernard, Buffalo, N. Y.	1,685
Martin, J. E., Tulsa	2,250
Neal, D. F., Cleveland	686
Niece, Charles E., Tulsa	895
Pooler Creek Oil & Gas Co., Tulsa	957
Richards, Walter W., treasurer, Wilmington, Del.	1,250
Simons, G. A., Okmulgee	8,108
Smith, George P., Oil Co., Dubuque, Iowa	10,150
Sullivan, E. J., and W. C. Dickey, Bartlesville	716
Wertzberger, D. D., Tulsa	879

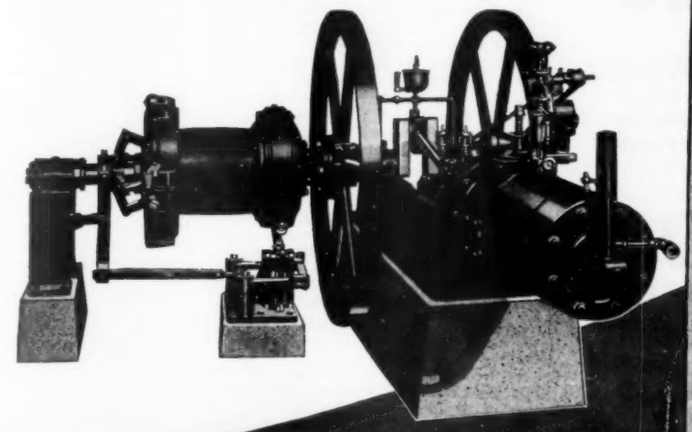
RUMANIAN OIL LOAN MAY BE SOUGHT HERE

Finance Minister Lapedatu of Rumania has made it clear in a semi-official statement that his country is planning to go to America for a loan and says it is the hope of the Government that the rich oil resources of the nation may be used as security for such a loan. The finance minister believes the loan would help stabilize the currency of Rumania.

In an interview, the finance minister said:

"I hope that such a transaction, if it is made, will relieve the acute financial crisis in the Rumanian oil market and permit the adaptation of Rumanian oil prices to a world market level. This would revive Rumania's oil exports which are now suffering a grave depression."

PATTIN REVERSE GEAR ENGINES



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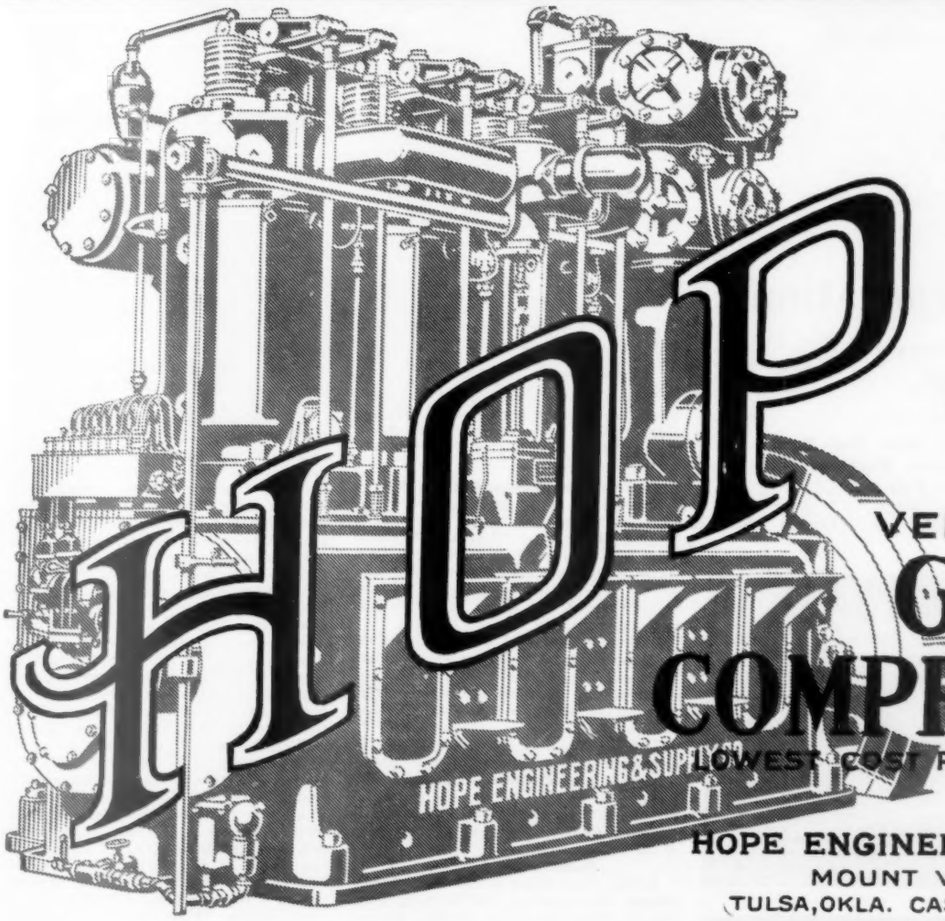

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MICHIGAN FIELDS

(Continued from Page 70)

of a profitable field are seen by local oil men in reports of conditions in other fields, says the Saginaw News Courier.

"One of these reports, dealing with the Bremen, Ohio, Field, is particularly specific in its comment upon town lot drilling. It is Bulletin No. 12, fourth series, of the Ohio Geological Survey, entitled 'The Bremen Oil Field,' discussing the Bremen development. It says:

"'In the spring or 1909 the drill was at work near Bremen and late in the year on town lots. Much money has been wasted in this enterprise—not only have wells been drilled on adjacent lots, but in at least one case two have been put down on the same lot. Sometimes the derricks were so close together there was scarcely room for the tools. Such crowding is a shameful waste of time and money, for what would be profitable with the usual spacing of wells must be unprofitable when a half dozen are drilled where one should be.'

"Drilling wells too close together results in a very rapid falling off in production, oil men say, this being the reason why this practice is held to be unwise. Effects of this close drilling are dealt with in another publication of the Ohio Geological Survey, Bulletin No. 1 of the fourth series. Telling of drilling in and around Scio, Ohio, in 1899, it says:

"'According to the gauger of the Buckeye Pipe Line Co., the largest number of producing wells in the field was in January, 1900, and numbered about 850. The total number of well's drilled in the field is about 1,000. Of these, perhaps 220 were drilled within the corporation limits, but only about 20 of that number are still producing (1901). From a financial standpoint, nearly all of the village wells were failures, owing to their having been drilled too close together.'"

Seldom a field of any size is found but what some town gets a town lot boom. Back in 1891 the old Lima Field of northwestern Ohio had two spots in particular which had real town lot drilling. The hamlet of Prairie Depot, at that time known as the Freeport Field, in Montgomery Township, Wood County, had many wells drilled on town lots, and as a whole it proved a heavy loss. The first few wells drilled got heavy production and paid out quickly at prices ranging from 15 to 47 cents per barrel. The reason for this was that the territory was new and the first few wells got the benefit of the big flush production. Another and larger town lot development was that, also in 1891, in the Delaware and other additions of Findlay, in Hancock County, being on the north side of the city. More than 100 strings of tools were running there day and night. The only ones that made money in this last town lot development were those that rushed in a number of wells, got a heavy initial production which held up for some weeks and then commenced to drop off quickly. The later comers to the development failed to get heavy producers and were the losers.

Recent Completions Holding Up

Reports are that the Bliss Petroleum Co.'s No. 4 on the Casper Ulrick farm, Section 14, Saginaw Township, is swabbing slightly less than 40 bbls. a day, while S. R. Dietrick and others' No. 1 on the Lodge-String lots, on the Hermansau Road and south of the Ulrich wells, is swabbing close to 30 bbls.

Barker Oil & Gas Co.'s No. 1 Charles R. Phillips farm, Section 15, Saginaw Township, 1½ miles west and ½ mile north of the discovery well of the field, is reported pumping close to 15 bbls. daily.

Local Petroleum Co.'s No. 1 on the Graham-Sparling property on North Oakley Street, Carrollton, drilled in two weeks ago and given two shots, one of 60 quarts and the other 80 quarts, is reported to have averaged a production of 33 bbls. daily.

Saginaw Field News

A bull wheel burst at the Saval Development Co.'s well on the Nentwig property at Weiss and Eddy Streets, scattering fragments for blocks, doing some damage to a residence and garage, but no one was injured. The wire line broke letting the tools in the bottom of the hole at around 1,300 feet.

Superintendent S. P. Alcorn of the Ohio Fuel Corporation announced that his company is making preparations for the drilling of a wildcat well on the M. Laundra farm, near the northwest portion of the southwest quarter of Section 10, Saginaw Township, a mile west of the Bay Road on the Mackinaw Road, half a mile north of the Shattuck Road and the farthest west of any of the present producing wells in the field. The closest producing well is almost a half mile southeast of the location which is the Bliss Petroleum Co.'s No. 1 on the Fred Engel farm.

A company that for many years has been prominent in development of the natural resources of the Saginaw Valley will have a part in operations in the Saginaw Field, according to announcement by George C. Eastwood, manager of the Consolidated Coal Co., by which his company has formed an arrangement with the Sun Oil Co. to drill a test on property owned or held under lease by the Consolidated Coal Co. A rig is now being erected on the location and drilling is to start not later than December 1. The program covers about 4,000 acres in Buena Vista and Blumfield Townships, Saginaw County, in the vicinity of the Uncle Henry Mine, the first location being about half a mile north of the Wadsworth Road and half a mile east of the Uncle Henry Mine, which is several miles east of the City of Saginaw.

The Independent Torpedo Co., whose nitroglycerine magazine was blown up a short time ago, is starting the construction of a new magazine in Swan Creek Township, Saginaw County, far removed from buildings.

E. O. Schade and H. W. and W. H. Schaitberger are arranging to start a well on the H. W. Schaitberger property on Jackson Street, in Carrollton.

S. M. Bacon and others at last report have set a string of 2,150 feet of casing in their Bouchard test, on Maple Street, in Carrollton, which was dry in the Berea sand, and have hopes of finding a pay in the Saginaw sand.

KENTUCKY-TENNESSEE

(Continued from Page 68)

light gas well. In District 6, same county, the Popping Rock Co.'s well on the T. L. Elam farm is rated at 3 bbls.

In District 32 in the North Weir Field of Lawrence-Johnson Counties, the Swiss Oil Corp.'s No. 34 on the Proctor Sparks farm is estimated at 10 bbls. initial.

In District 21 of Floyd-Knott Counties the Eastern Carbon Black Co. has brought in another nice gas producer on the W. P. Leslie farm.

Western Division

Many operators are now rushing to the western division on account of the recent good completions found in the Owensboro Field, as well as the big well drilled in a short time ago by the Wood Oil Co. on the Davenport farm, in the Davenport Pool of Warren County. Much lease work is being done in all parts of Hancock, Ohio and Daviess Counties, as well as in Muhlenberg, Butler, Hopkins and other adjoining counties.

General Superintendent W. F. McCray, of the Illinois Pipe Line Co., and his assistants are doing everything in their power to connect up all producing wells brought in anywhere near the Illinois Pipe Line system through the western portion of the Blue Grass State. Gaugers, roustabouts and all connected with this system have made many friends during the short time they have been in the field.

When Shooter Walter Johnson shot the wildcat well of J. C. Ellis on the J. Weller farm in Ohio County, his remark was that it was good for 400 bbls., and his guess was close, for it is reported to be making 16 bbls. per hour, which means 384 bbls. the first 24 hours. Mr. Ellis, the owner of this well, which was his first entrance into oil producing, formerly owned a large acreage of timber land in that section. When he sold off the tim-

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The photograph was made from an airplane and shows one of the largest pipe stocks in the world, carried by a single jobber. It is the Thenard Yard of the Republic Supply Company of California, located a short distance from the Wilmington Docks. The stock is maintained at this point for distribution throughout the California field. All the pipe shown in the picture was made by Republic.

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ber and the land he reserved the mineral rights, at that time thought to be of no value. Now it may make him a fortune. He also holds the royalty rights on the original wells of the Ohio Oil Co., which entered the field about six months ago and secured a number of leases and met with success from the start.

The Ellis well is a short distance to the south of the Ohio Oil Co.'s production, and is only a short distance from the Mt. Moriah Church and northwest of Hartford, the county seat of Ohio County. This well will bring about an active drilling campaign. All the available leases within the territory of the new well will be tested as rapidly as the drillers can get at work. Oil men from all directions, attracted by the report of the find, are flocking there, and lease transactions are numerous. This new completion being so close to the county seat will be a great help to it. It is remembered some dozen or more years ago there was a rush to Hartford when a showing of oil was discovered, and around a dozen wells were drilled, but nothing out of the ordinary was struck, and the bringing in of larger wells in other parts of the state attracted attention from the first producing pool of Ohio County, and development work lagged until a few years ago when it was revived with much success since. The Ellis well struck sand at 549 feet and 51 feet in the sand, total depth 600 feet.

Outside of the Ellis producer but two others were completed in the Owensboro Field, one being the Leeper Oil Co.'s No. 4 in the southwest corner of the W. A. Probus 37 acres, just north of the J. S. Colyer 100 acres, in the Colyer area. This well produced 15 bbls. natural and after given a shot showed an initial 24-hour gauge of 40 bbls. It was cased at 471 feet, top of sand at 476 feet, bottom of sand 490 feet and drilled to total depth of 504 feet, and shot with 40 quarts. The other well was purely wildcat in an effort to find oil at Red Hill, drilled by C. C. Chrysler and others. Much trouble was encountered from caveins and slides, and the company is now abandoning the venture. Another attempt will be made later at another spot near the Red Hill School House.

Several wells are in the sand or near the sand, but yet uncompleted in various parts of the field. In District 8 the Spice Knob Oil & Gas Development Co. is complete as far as depth is concerned, but has been unable to shut off the water so far. This well drilled through 15 feet of Barlow sand and a pocket of 19 feet, the total depth of hole being 753 feet. It is in Hancock County, and its initial will be given as soon as the water is exhausted and the well is producing. This is No. 8 on the Bert Thompson 40 acres. Thomas C. Morgan, president of this company, was born and reared in this section. He left Hancock County a number of years ago and became interested in oil. He then came back to his old home place and secured a lease and found a well at his first effort. He holds the record in this field of never having struck a "duster." D. J. White's No. 1 on the Burdette 183 acres, same district, was dry in the Jett sand at 520 feet and will drill to the Barlow sand. This well is in Ohio County. Bert Thompson is nearing the sand at his initial venture on the Frank Pullinan farm, just west of Pellville, in Daviess County. The Panther Creek Oil Co. and others are starting their No. 14 on the J. W. Smith farm. This farm already has 11 producing wells and 2 dry holes, and is in Ohio County.

The Creek Drilling Co. and Hapgood found what makes a good showing in a well on the Owens lease, south of the Ohio Oil Co.'s pool. The oil was found in the Jett sand and will be put on the pump within a few days.

Johnson and Engle are making ready to shoot their wildcat venture on the Trodgen farm, several miles south of the proven field of Ohio County. They struck oil in a stray sand at 355 feet, but went down to a depth close to 1,000 feet, trying for oil in another sand. Failing in this they have plugged back and will give the shallow pay a shot.

Other Completions

In the Glasgow Field of Barren County the Consolidated Oil & Gas Co. is doing an active development on the H. W. Duff lease in the Hall Baker Pool. Its Nos. 50, 51, 52, 53, 54, 55 and 56 on this lease are reported at 20 bbls. each, while No. 57 is good for 50 bbls. initial production. In the Beaver Creek Field, same county, the Lackawanna Oil Producing & Refining Co.'s No. 2 Ish Winniger farm is rated at 5 bbls.

In the Bowling Green Field of Warren County, P. H. Lavelle's No. 9 well, 500 feet from the south line and 200 feet from the east line of the W. R. Hunton farm, south of Bowling Green, went to a depth of 1,051 feet where it was dry and abandoned. In the Davenport Pool, along the Barren River, near Thomas Landing, the Wood Oil Co. went to a depth of 980 feet in its No. 25 well, 1,000 feet from the north line and 700 feet from the west line of the C. G. Davenport 222 acres. No oil was found in the deep sand and the well was plugged back to 445 feet and given a shot, but production will not be known until tested out after cleaning out.

In the Mitchell Pool of the Scottsville Field of Allen County, Mealy and Mealy's No. 24 well, 1,200 feet from the north line, 2,800 feet from the south line, 1,000 feet from the east line and 1,500 feet from the west line of the M. J. Lewis farm, proved a dry hole at a depth of 380 feet.

EASTERN FIELDS

(Continued from Page 68)

average wells. In the deep sand territory in southeastern Ohio, in Section 9, Hanover Township, Licking County, M. F. Whitehill & Co. completed and shot No. 5 on the Goldie H. Crawford farm, good for 25 bbls. a day. In Section 5, same township, Moore & Adams have a light pumper in the Berea grit at No. 5 on the P. L. and Mary E. Wolfe farm.

In the northwest quarter of Section 22, Kilbuck Township, Holmes County, the Kemrow company has a 25-bbl. producer in the Clinton sand at a test on the Joseph Beller farm. In the southeast quarter of Section 28, Hanover Township, Perry County, Guengeheim & Lewison have completed in the Clinton sand a test on the Milton Pettit farm. It is a duster.

In Grant district, Pleasants County, West Virginia, L. P. Bickel & Son have completed in the Berea grit No. 3 on the V. A. Hammet farm. It is showing for a 25-bbl. producer. In Washington district, same county, the Hudson Oil Co. completed in the Big Injun sand a test on the P. Strusburg farm and showing for a 5-bbl. pumper.

Harrison County

On Ten Mile Creek, Ten Mile district, Harrison County, the Grasselli Chemical Co. drilled a test on the John Dolan farm into the salt sand, good for 10 bbls. a day.

In Henry district, Clay County, the South Penn Oil Co. has completed in the Big Injun sand No. 25 on the O. D. Stockly farm, not good for more than 5 bbls. a day. All late completions in this the most important development of the year in the eastern field, have come in light, indicating that the outer edge of the producing area of the pool is not far distant. On Hughes River, Murphy district, Ritchie County, the Valley Gas Co. has started to drill on the E. Barker heirs' farm.

In Glenville district, Gilmer County, the Pittsburgh & West Virginia Gas Co.'s test on the E. D. Fulton farm is a duster in the Big Injun sand. The Mudlick Oil & Gas Co.'s second test on the E. G. Davisson farm, in Collins Settlement district, Lewis County, is a gasser in the Gantz sand.

In Murphy district, Ritchie County, the Southern Oil Co. has drilled down an old well on the A. W. Lemon farm. It is dry in the Squaw sand and has been abandoned. In Union district, Wood County, Parsons & Sweeney have completed No. 12 on the C. G. Ralston farm. It is dry and abandoned.

On Breeden Creek, Harvey district, Mingo County, 1,000 feet southwest of No. 14 on The Logan Cannel Coal Co. tract, the Old Colony Oil Co. has completed in the Maxon sand No. 21 on the same tract good for 10 bbls. a day. The

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same company has started to drill Nos. 20 and 22 on the same trace.

Drilling Tests

In Duval district, Lincoln County, the United Fuel Gas Co. has started to drill a test on the B. R. Vanderlinde farm. In Carroll district, the Cambridge Gas Co. is drilling on the Nacy A. Short farm. In Mannington district, Marion County, Monroe & Laughlin have rigged up to drill a test on the R. A. Moffett farm. In McElroy district, Tyler County, the Alvy Oil & Gas Co. has made a location on the W. H. McIntyre farm. In Freemans Creek district, Lewis County, W. M. Frey and others have a rig up on the M. E. parsonage lot. In the same district, the Reserve Gas Co. is due in the sand on the C. Z. Grant farm.

In Banks district, Upshur County, the Carnegie Natural Gas Co. is due in the Big Injun sand on the D. M. McQuain farm. In Union district, the Union Gas Co. has started to drill a second test on the C. Heavner farm. In the same district, the French Creek Oil & Gas Co. has a rig completed on the Fay Hammer farm.

On Willow Island Run, McKim district, Pleasants County, the Delong Farm Oil & Gas Co. has made a location on the C. C. and Rebecca Delong farm. On Indian Run, Clay district, Monongalia County, the Dunn Mar Oil & Gas Co. has started to drill down to the lower sands No. 6 on the D. J. Eddy farm. On Jakes Run, same district, the South Penn Oil Co. is drilling down No. 5 on the Presley Tennant farm.

Roane County Active

Operations in Roane County show greater activity than at any time during the year. In Geary district, M. T. and R. K. Ogden have a rig up on the Margaret T. Ogden farm. In Geary district, the United Fuel Gas Co. has the rig completed on the Nannie Shafer farm and made a location on the A. A. Knight farm. In Reedy district, the Heck Oil Co. is due in the sand on the N. Williams farm. In Lee district, Calhoun County, Godfrey L. Cabot is due in the sand at a test on the William P. Price farm. In Center district, Wetzel County, the Manufacturers Light & Heat Co. is due in the Gordon sand on the G. M. Scott farm. In Liberty district, Marshall County, the same company is hauling tools to a location on the W. A. Evans farm. In the same township, the same company has made a location for a second test on the F. L. and V. P. Reid farm.

In Elk district, Harrison County, the Grasselli Chemical Co. is due in the Speechley sand on the William Rymer farm. In the same district, the same company is drilling on the Leroy Lance farm. In Ten Mile district, the Carson Oil & Gas Co. has a rig material at a location on the J. W. Harbert farm. In New Milton district, Doddridge County, the National Carbon Co. has started to drill on the Lewis Maxwell farm. In Ten Mile district, Harrison County, the Aspurin Oil Co. is due in the sand on the Patrick Dolan farm. In Center district, Calhoun County, W. H. Bickel has started to drill a second test on the L. E. Betts farm. In Liberty district, Marshall County, the Carnegie Natural Gas Co. has started to drill on the F. W. Cole farm. In Center district, Wetzel County, the Myers Oil Co. is drilling on the T. C. Yocum farm.

Guernsey County Tests

In Section 1, Westland Township, Guernsey County, Ohio, the Pure Oil Co. has the rig completed for a test on the C. R. Ringer farm. In Sections 8 and 10, Adams Township, the Logan Gas Co. has rigs up on the B. N. and V. Dodson and L. J. Philipps farm. In Section 15, the Ohio Fuel Gas Co. has a rig up on the Sarah L. Stone farm. In Section 18, Liberty Township, the Ohio Fuel Supply Co. has a rig up on the B. L. Miller farm and a second test on the W. B. Hall farm. In Section 21, Adams Township, the Big Lime Oil & Gas Co. is starting on the William Knight farm. In Section 9, Westland Township, Glenn Scott and others have a rig up on the Unity Hall School lot. In Section 10, same township, Black and others have a rig up on the George Whitaker farm. In Section 19, Jackson Township, the Kemrow Products Co. and Eastern Carbon Black Co. are drilling a test on the Amos McElvers farm.

Good Producer in Greene County

Just at the close of the week the Gordon sand pool in Morris Township, Greene County, Pennsylvania, completed another good producer. This is the only section that is furnishing any worthwhile wells and is doing more than twice as much development work as all other of the old southwest fields. The Carnegie Natural Gas Co. drilled in No. 3 on the T. F. Rutan farm and it produced 125 bbls. the first 24 hours. The tools were recovered from No. 5 Rutan and the well flowed 80 bbls. from 8 a. m. to 4 p. m.

In South Franklin Township, Washington County, the Carnegie Natural Gas Co. has a gasser in the Gordon sand at a test on the H. F. Taylor farm. In the McDonald district, Washington County, Dallmyer & Co. completed a duster at a test on the William Rankin farm. In the same locality, the Cowden Gas Co. is due in the sand at a test on the Rankin heirs' farm. The same company has the rig completed for a test on the Cowden Gas Co.'s farm. In Oakmont Borough, Duncan and others are drilling a test on the W. A. Cousan farm.

In Ohio Township, Beaver County, Samuel Reed and others have a very light pumper at a test on the Mrs. R. J. Tuttle farm. In the same township, L. A. Reed & Co.'s test on the Anna Richards farm is a light gasser. In Green Township, McCarthy and others are drilling a test on the George Behit farm.

CENTRAL WEST FIELDS

(Continued from Page 70)

Logan Gas Co. struck a light gasser at a test in the southwest corner of the Emanuel B. Weaver 130 acres, Section 33. In Kilbuck Township, Klise-Eckstein-McCann Co.'s test in the northeast corner of the J. E. Beller 76 acres, Lot 15, is credited with 5 bbls. of oil and 148,000 feet of gas.

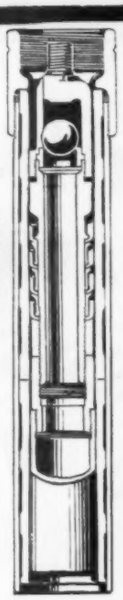
In Athens County, Carthage Township, E. A. Sweeney and others' No. 3 on the Margaret Rowan farm, of 123 acres and in the southwest corner of the lease, is an average gas well from the Keener sand. The Logan Gas Co. has an average gas producer at a test on the A. M. and Florence Mooney farm, Lot 16, at 4 feet in the Maxon sand. Hendricks and others' No. 4 on the C. D. Swartz, same lot, is also an average gas well. The Logan Gas Co. is starting No. 3 well in the southwest corner of the John W. Barnhill 68 acres, Lot 25 and a test in the northwest corner of the Charles E. Dean 50 acres, same lot. Carter Oil is starting No. 2 in the southeast corner of the Ida B. Davis 134 acres, Lot 18, and the Colmer Oil & Gas Co. is drilling a second well 488 feet from the north line and 1,150 from the west line of the Wilbur Colmer 35 acres, Lot 28.

In Coshocton County, Perry Township, the Logan Gas Co. is drilling a test in the southwest corner of the H. E. & R. Babcock 190 acres, Section 15. In Monroe Township, the East Ohio Gas Co. made a location for a test 400 feet from the north line and 1,050 from the east line of the M. J. Nyhart 40 acres, Section 1.

In Cuyahoga County, Dover Township, Hulse & Kundtz's No. 1 in the northwest corner of the N. H. Austin 6 acres, Lot 17, is a very fair gas producer. The Logan Gas Co. made a location for a test, 330 feet from the north line and 700 from the east line of the G. W. Winslow 40 acres, Lot 26, also for a test in the northwest corner of the Eugena A. Jent 26 acres, Lot 15. The Preston Oil Co. made a location for a test in the southeast corner of the A. Dunford 13 acres, Lot 15.

In Vinton Township, Knox County, Beagley & Shaffer's second test on the William Dearth farm, Section 31, is reported at 2 bbls.

The Empire Gas & Fuel Co.'s second well in the southwest corner of the Lewis Donald farm, Lot 12, Hardy Township, Holmes County, is reported a duster.



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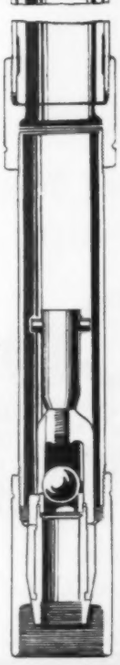

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STATE OIL INSPECTOR URGES CO-OPERATION OF OIL COMPANIES

By James Duce*
State Inspector of Oils, Colorado

That oil inspection is not perfect must be conceded, and I believe it never will be, until the better element of the industry takes an active hand in the formation of the laws that govern it, and cease fittering away valuable time and energy in peevish criticisms, and bend their efforts along practical lines to help it be what it ought and we all hope some day will be.

Personally I have always thought that oil inspection should not be in a position to dictate to anyone what he should buy or sell, but it was a proper function of inspection to see that no fraud took place in the sale or transfer of oil.

At the present time if one started to drive an automobile across the continent from the Atlantic to the Pacific coast, and bought "gasoline" as he needed it, the quality of that gasoline would vary about as greatly as the scenery he passed through, and whether he would be able to appreciate the variety as much as the scenery is a question.

The automobile knows no state line but different states have in their wisdom enacted specifications for gasoline which I cannot think can be fully effective.

The conditions surrounding the refining of gasoline are constantly changing. A specification made today by the best minds in the industry might by developments be wholly obsolete in a year.

I remember in one oil producing state where the state authorities sold their royalty oil to an oil company with the obligation to refine that crude within the boundaries of that state, and then they promptly proceeded to pass a law with a specification for gasoline that rendered it impossible for the company to comply with, from the particular crude.

I can conceive of no greater service that this meeting could render to the public and the industry than the formulation of some plan that would contemplate the getting together of all interested so they could arrive at an agreed specification for the fuel which could be sold as gasoline, and then bring all the influence possible from all angles upon all state legislatures to induce them to adopt such specifications in their state statutes, and at the same time have some power to modify this specification when in the opinion of some national authority conditions rendered such modification advisable, and this might be extended to include specifications for other grades of fuel which might be called "Motor Fuel" and "Tractor Fuel."

If this was done and these specifications were accepted nationally, it would be in line with the general trend towards practical conservation, it would simplify many refining problems and tend to reduce costs and as a result benefit the great gasoline consuming public.

Water-White Notion

One still comes across that venerable item in gasoline specifications, "water-white gasoline." Some of us have tried to find a reason for its existence, and the only one we have been able to unearth is that during the early days of refining crude mineral oil, before the use of the internal combustion engine became general, one of the chief uses of the high fractions was to adulterate kerosene and in those days the difference between suspended matter and color was not generally appreciated, and for that reason among other items kerosene specifications had the water whits item and its adulterates very naturally had to have the same.

Today water-white specifications have no place in motor fuel specifications.

The Bureau of Mines some time ago advocated the coloring of gasoline with a red dye as a safety precaution and they did so color aviation gasoline during the World war.

There is a story told of a gasoline dealer who had an elaborate filling station filled up with visible measuring pumps. He had a car delivered late one Friday when he was short on his stock. He had a large week-end tourist trade. When he opened his car he found the gasoline was off color, being quite yellow. It was impossible to get other supplies so he hit on the plan of having a big sign painted and put up at his station, reading "Sun kissed gasoline from Sunny California." To this day that station is successfully operated with the same colored "Sunny Gasoline." I quote this as evidence that the public does not really demand "water-white" motor fuel.

Again, it is a very debatable question whether the effects of improperly treated gasoline to satisfy this water white fetish do not give the motorist more trouble than off colored gasoline ever could.

So-Called "Improvers"

One more item that could be dealt with by oil inspection—the so-called gasoline improvers, I have had a great variety of these. I do not know what the future holds for us in this, but up today I have not seen one that will do all that it was claimed for it and I know of several hundred that are absolutely useless. There is one peculiar likeness among 95 per cent of them and that is that the owners loudly claim that they will help the "motor fuel user" to beat the "oil trust" and they try to make capital out of the fact that some oil companies decline to use them for that reason. In some instances the sale of these nostrums has been enormous and has resulted in the transfer of very considerable sums from the pocket-books of the credulous to the bank accounts of unscrupulous dealers. Not the least item in the wrong that these preparations have done, is the result of the lying propaganda their owners have put out about the oil industry and they have added in a very appreciable amount to the prejudices which do exist against the industry, and I would ask, can this matter be handled better through any other agency than oil inspection, and would urge upon out state departments of inspection the fact that by co-operation this unholy trade could be put an end to in short order. It may be urged that oil inspectors ought not to have the power on their own say so to prohibit the sale of preparations claiming to be gasoline improvers. To meet this objection, I would suggest that in all such cases, the findings of any state inspector should be subject to an appeal to the United States Bureau of Standards who have special facilities for such investigations and that their verdict be final.

The regulation of all measuring devices used in oil stations should be under the office of oil inspection. The so-called visible measuring pumps came into use from public demand as they had been led to believe that that mythical body loosely described as the oil trust controlled matters so thoroughly that even oil station pumps were suscepible to their influence, even now one often hears that all gasoline pumps are crooked; we have some few thousand of them in the state of Colorado, and while I do not even suggest that every gasoline pump owner is an angel of purity I do say that we have found him quite up to the average of business man in honesty of purpose and that his anxiety to live up to the law is unquestioned, but there are people in this business as in all others, that to say the least, will bear watching and, unless looked after, not only wrong the public but wrong every member of their own trade. I have seen some very interesting figures the difference of the conditions of these automatic pumps before and after they were subject to inspection.

Oil Substitution

Quite recently many references have been made to the substitution of different brands of lubricating oil for those asked for by purchasers and societies have been formed to "protect the public" against such frauds.

We have seen head lines in the press

*Before national conference of gasoline tax administrators and state oil inspectors, St. Louis.

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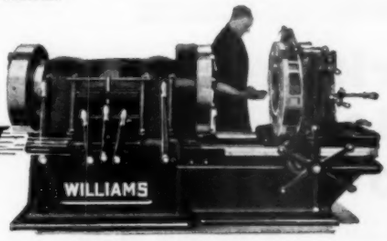

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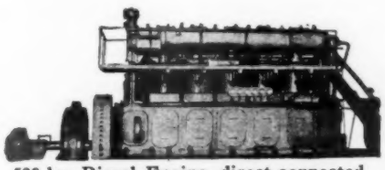
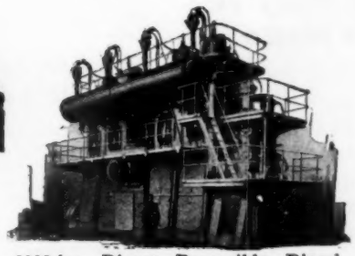
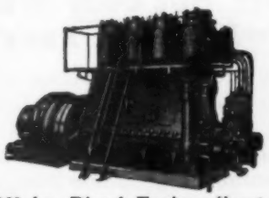


500-hp. Diesel Engine, direct-connected to A.C. Generator, four-cycle, air-injection.



3000-hp. Direct Reversible Diesel Engine, two-cycle, double-acting, air-injection.



360 hp. Diesel Engine, direct-connected to 240 kw. A. C. Generator, two-cycle, solid-injection.

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warning the public and quite a few fanciful estimates of the vast amounts the public is swindled out of each year. That substitution does exist, no one who has been concerned with the industry will deny, but no one who has looked into the matter can deny that the condition is improving. This question is one of the most difficult any inspection department has to face, and the difficulty is largely caused by some owners of advertised brands of such oils. If these gentlemen would preserve such regular standards of their oils that they could be identified at any time the matter could be readily and effectively handled, but they do not do so, and so long as they maintain such a variation in their products sold under the same label, so long will they be the subjects of unscrupulous pirating of their brands. To prosecute offenders under such conditions is to invite disaster. I know of no oil inspection department that is not deeply interested in this phase of the work, and it rests with the oil industry itself to make such arrangements with its own products to make that work effective.

In practically every line of activity some sort of governmental inspection is provided. What grounds can be urged for making an exception of the oil industry? It may be true that individual cases of oil inspectors can be cited where the individual has been either corrupt or incompetent, but such cases do not affect the advisability of oil inspection any more than the failings of Judas Iscariot affect Christianity.

Many oil inspection departments have even under great provocation declined to publish broadcast errors they have discovered in oil companies' dealings, realizing if they did so it would do uncalculable harm to the industry by inflaming an altogether too prevalent prejudice that already exists in the minds of many with reference to this great industry.

Hitherto prejudice rather than intelligence has tinctured legislation relating to the industry. This has been especially the case with oil inspection laws, and I venture to assert that the time is now ripe to make a supreme effort to usher in a newer, better and more just era, in which genuine, whole-hearted co-operation will take the place of that barbaric attitude which constantly cries out like the savages of old for some sacrifice to appease popular prejudice.

In conclusion, might I remind you that it was an oil inspector, who took the initiative in this movement of co-ordinating state inspection laws and of making a real effort to bring about better conditions.

MEANING OF GOVERNMENT SPECIFICATIONS

(Continued from Page 42)

sumer, or corporation, may, if desired, with entire propriety, make such a specification that only the product of one company will meet the requirements. It may be inquired, however, if this course is followed, why the goods are not bought by brand name in the first place. Sometimes purchasing agents are persuaded by overzealous or uninformed salesmen to write a specification in terms that restrict the available supply to the extent that only a small number of manufacturers can comply with the specification.

Gasoline Surveys

In order to keep informed in regard to the kind of gasoline the industry is supplying to its retail trade, the Bureau of Mines has for seven years conducted semiannual gasoline surveys. The information obtained in these surveys is useful to the Technical Committee in considering revisions of specifications for it is possible by a study of these surveys to judge the extent to which proposed new requirements can be fulfilled with the regular stock-in-trade of the industry. This is the primary reason for the semiannual publication of the motor gasoline surveys by the Bureau of Mines.

Several people, in and out of the petroleum industry, have recently proposed other means than the present distillation test for gauging the effective volatility of a motor fuel. These proposed methods are based on the idea that the results of the present distillation method are obtained, by means which do not parallel the process by which the gasoline is used in the automobile motor, nor the means by which gasoline is produced. These new methods are still in the formative stage, and it may be that ultimately the quality of a motor fuel will be determined by methods fundamentally different than those now used.

The third item under "Properties and Tests" for motor gasoline is sulphur, and the statement is as follows: "Sulphur—Method 520.1. Sulphur shall not be over 0 10 per cent." Representations have been made to the Technical Committee from several sources, that this requirement is unduly stringent and that the limit for sulphur by method 520.1 could be considerably increased without adversely affecting the quality of the gasoline. The Technical Committee has heretofore taken the stand that it has not been definitely proved that this is true, and also that a sufficient quantity of gasoline is available which meets the present requirement in regard to sulphur. This question is being studied in several organizations inside and outside of the Government service and results in the future may reasonably be expected to shed some light on the question.

Specifications for Kerosene

Conditions with respect to Government specifications for burning oils have been similar to those which have been indicated in connection with gasoline. The same lack of uniformity, and indefinite statement was prevalent in these specications.

Bulletin No. 2 of the Committee on Standardization of Petroleum Specifications, dated December, 1918, contained specifications and methods for testing of burning oils. This bulletin contained the following introduction:

"The specifications for illuminating oils which have been heretofore used by the different departments of the Government, including the Railroad Administration, have been, at times, so drawn that they could be met only when the oil was manufactured from the crude oil from some particular section of the United States, notwithstanding the fact that oils from other districts could produce an illuminating oil equally as desirable.

"This resulted in increased cost, not only to the Government, but to the railroads, when they purchased oils in one part of the country and transported them to another part, when a perfectly satisfactory product could have been obtained much nearer to the point of consumption. New specifications have been drawn to allow these products to be made from any satisfactory crude petroleum, thereby saving not only unnecessary rail transportation but making the oil available at point of consumption at less cost."

The specification for water-white kerosene in Bulletin No. 2 contained the following specific requirements: Flash, color, sulphur content, flock endpoint, cloud test, reaction test and burning test. The apparatus and methods for making these tests were not very definitely described in comparison with the detailed descriptions which are to be found in use today.

In the report of the committee issued as Bulletin No. 5, effective December 29, 1921, there was only one change in the specification for water-white kerosene, but some of the methods for testing were more definitely described than in Bulletin No. 2 of December, 1918. The reaction test of the 1918 specification was replaced by the doctor test in the new specification.

Bureau of Mines Technical Paper 305 was the next publication. This was effective January 23, 1922, amended March 1, 1922. The specification for water-white kerosene was identical with Bulletin No. 5, but more progress was made in the direction of definite and detailed description of methods for testing. The specification for water-white kerosene up to and including this paper had been briefly: Color 21 Saybolt, flash 115 degrees Fahrenheit. Tag closed tester, sulphur 0.06 per cent, lamp method; floc, negative; distillation, endpoint not higher than 600 degrees Fahrenheit; cloud test not higher than 0 degrees Fahren-

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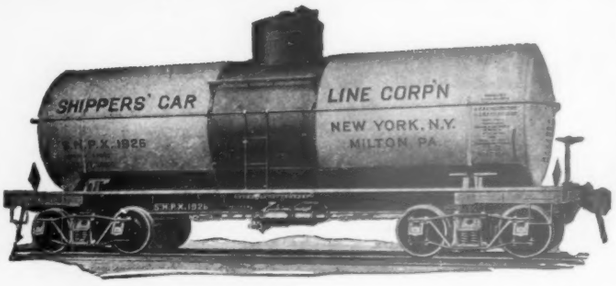

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heit; doctor, test, negative; burning test, 18 hours. The procedure and apparatus for most of these tests had been by this time (March, 1922) about as definitely described as was practicable.

Prime and Water White

Technical Paper 305 contained a specification for prime-white kerosene, as well as the one for water-white kerosene. The prime-white kerosene differed from the water-white kerosene in the following particulars: Color 16 Saybolt instead of 21 Saybolt, sulphur 0.09 per cent instead of 0.06 per cent, maximum distillation endpoint 625 degrees Fahrenheit instead of 600 degrees Fahrenheit, cloudpoint 5 degrees Fahrenheit instead of 0 degrees Fahrenheit and burning test 8 hours instead of 18 hours. Prime-white kerosene was intended primarily for use as fuel and for cleaning, whereas water-white kerosene was intended primarily as an illuminant. The specifications were so written that the two kinds of kerosene could be used interchangeably in case of necessity.

The next revision of Federal specifications was effective October 31, 1922, published as Bureau of Mines Technical Paper 323. The requirements for water-white kerosene were changed by raising the limit for sulphur by the lamp method from 0.06 per cent to 0.075 per cent. The requirements for prime-white kerosene were also changed by raising the limit for sulphur from 0.09 per cent to 0.10 per cent.

The present Federal specifications for lubricants and liquid fuels have been in effect since June 18, 1924, published as Bureau of Mines Technical Paper 323A. In this specification a change was made in the classification of kerosene. There is a specification for kerosene, and one for marine kerosene, which differ only in that the minimum flashpoint for kerosene is 100 degrees Fahrenheit and for marine kerosene it is 115 degrees Fahrenheit Tag closed tester.

Otherwise, both kerosenes have the following specification: Color, not darker than 16 Saybolt; sulphur, not more than 0.125 per cent; floc, negative; maximum distillation endpoint, 625 degrees Fahrenheit; cloud point, not higher than 5 degrees Fahrenheit; burning test 16 hours. These are the specifications which are now in force for Government purchase.

Table 2 summarizes in tabular form the successive Federal specification for kerosene, showing the changes in these specifications.

TABLE 2—Showing Changes in Federal Specifications for Kerosene

Tests—	Date Effective				
	Dec. 9, '18	Dec. 29, '20	Mar. 1, '22	Oct. 31, '22	Mar. 18, '24
Color	21	21	21	21	16
Flash (degrees F.)	115	115	115	115	100
Sulphur (per cent)	0.06	0.06	0.06	0.075	0.125
Floc	Negative	Negative	Negative	Negative	Negative
Distillation (degrees F.)	600	600	600	600	625
Cloud (degrees F.)	0	0	0	0	5
Reaction	Negative	.....	.....	.....	.....
Doctor	.....	Negative	Negative	Negative	Negative
Burning	18 hours	18 hours	18 hours	18 hours	16 hours
Published in	Bull. No. 2	Bull. No. 5	Tech.P.305	Tech.P.323	Tech.P.323A

The reports above mentioned contained specifications for other burning oils, or illuminating oils, such as long-time burning oil, 300-degree mineral seal oil, and signal oil. These oils are intended for special uses, and are not of general interest.

Color in Kerosene

Color is probably of more importance in kerosene than in motor fuel, where the kerosene is to be burned as an illuminant by means of a wick. Although accidental contamination resulting in a color darker than 16 Saybolt may not be important, if the oil would otherwise have had a good color, a kerosene which without having been contaminated, has darkened to below 16, is a doubtful illuminating oil. Oils which undergo such a change in color are likely to cause charring of the wick, or a smoked chimney, and, if the color change is due to sulphur compounds may give off a disagreeable odor when burned.

The flashpoint requirement is strictly a safety measure, and has no other function. The flashpoint should be placed high enough for safety, and not so high that it becomes difficult or practically impossible to comply with the flashpoint requirement, and still produce a satisfactory burning oil.

The sulphur requirement is intended to eliminate kerosenes which will cause charring of the wick, smoky chimneys, or disagreeable odor when burned. This requirement also should not be made unduly stringent, so as to restrict the supply. The tendency in recent years, in Federal specifications, has been to increase this limit, as it has been found that burning oils are being marketed which are apparently successfully meeting the competition of kerosenes with lower sulphur content. The floc test is intended to give assurance that the oil is free from impurities derived from the chemicals used in the process of refining.

The distillation test is used to exclude unduly heavy, high boiling ends in the kerosene. Such heavy ends are likely to interfere with the wick-feeding qualities of the oil. The cloudpoint is intended to eliminate oils which might congeal in very cold weather. Instances have been known of kerosenes which solidified in extremely cold weather, in the states along the Canadian border.

Burning Test

It might be thought that, since kerosene is intended primarily as an illuminating oil, the burning test is all that is needed to assure a suitable oil. It would also appear that the burning test is easily made and since it requires inexpensive apparatus, is a very desirable test.

The fact is that to carry out the burning test properly is one of the most difficult operations of all of the usual tests made on petroleum products. Its apparent simplicity is one of the major pitfalls. Actually, very small irregularities may have great influence as the result of the test, and may be the cause of rejection of a burning oil which should have been passed. Consequently, whenever an oil passes reasonable specifications in other respects and fails on the burning test, the results should be carefully checked before the oil is rejected. It if is found that no error has been made in the results of the other tests, the burning test should be repeated with the closest scrutiny of all details of the apparatus and procedure. Some of the most common sources of erroneous results in lamp tests are the following: Mechanical injury to the burner, bending it out of shape, and thus distorting the flame. A burner made of stiff metal should be used. Irregularity in the chimney, causing eddies in the draft. It is best to use a chimney with circular cross section rather than one which is flattened. Foreign matter in the wick, such as cotton seed oil, may cause a smoky flame. The wick should fit properly in the wick tube, neither too tight nor too loose, as either of these conditions may cause the oil to burn poorly. Strong or irregular draft in the room, often causes a smoky flame. Insufficient air supply may result in a smoky flame and charred wick.

Federal Specifications Board

The procedure by which a new specification is authorized by the Federal Specifications Board is as follows:

Specifications and methods for testing are recommended to the Federal Specifications Board of several committees, one of which is the Technical Committee on Lubricants and Liquid Fuels. This committee is at present composed of representatives of 12 Government agencies which are purchasers of petroleum products.

When the need arises for a specification for a petroleum product or lubricant for which there has not formerly been a satisfactory specification, the Technical Committee on Lubricants and Liquid Fuels is requested by the Federal Specifications Board to draw up a suitable specification. This committee then gathers available data and sets up a tentative specification which is referred to the Advisory Board of the Technical Committee for comment. This Advisory Board

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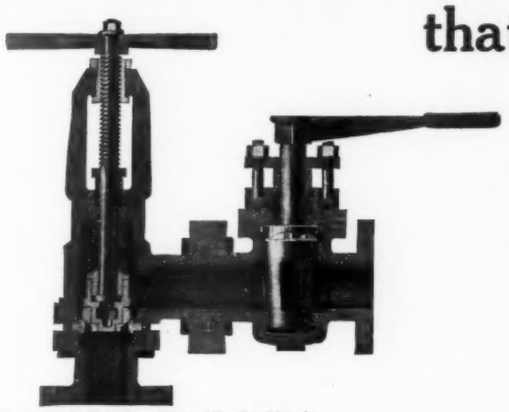

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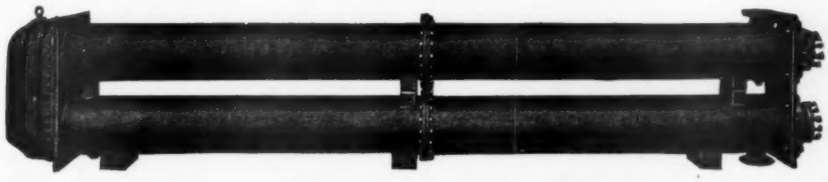

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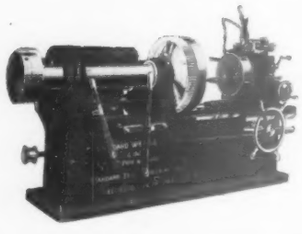

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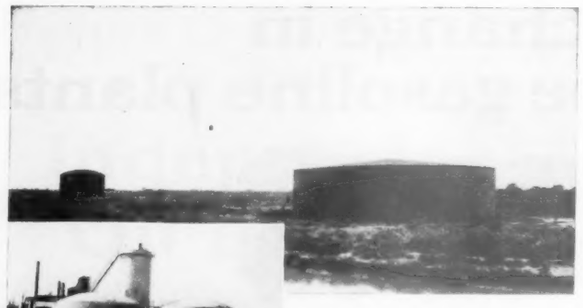

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is made up of representatives of several associations of manufacturers, marketers, and consumers of petroleum products. When the suggestions and criticisms of the Advisory Board have been received by the Technical Committee, these are considered by the committee and final action taken in regard to the recommendation to the Federal Specifications Board. Before the Federal Specifications Board authorizes a new specification the proposed specification is sent to the American Engineering Standards Committee which reports back its recommendations to the Federal Specifications Board, which then either accepts or rejects the material.

A Federal Specification for petroleum products is not the work of a single Government bureau, but represents the best thought of technical men of 12 Government agencies, as well as two advisory organizations outside the Government service.

It is only after a study of the recommendations of these manifold interests that the Federal Specifications Board publishes a specification to be used as a basis for the purchase of petroleum products by the Government.

This procedure has helped to eliminate ill-considered requirements, written without full knowledge of all conditions.

MEXICAN FIELDS

(Continued from Page 62)

being at 1,900 feet in gray lime; No. 279 is in gray lime at 1,795 feet; No. 280 has cemented 8-inch in gray lime at 1,200 feet; No. 283, the same, at the same depth; and, in the Tanchicuin sector No. 31 is in gray shale at 310 feet. Cia Pet. Maritima, (Federal Zone) No. 17 Ojital is spudding. Cia. Chileno Mexicano, No. 32 Buena Vista has the tools stuck in the hole at 1,675 feet, gray lime. Mexican Sinclair Petroleum Corp.'s No. 33 Tananturo has cemented 8-inch in gray lime at 1,538 feet. Transcontinental Petroleum Co.'s No. 277, Lot 4 Cacalilao has cemented 8-inch at 1,300 feet in the San Felipe. Its No. 4, Lot 21, in the West Maguabes, is running 10-inch in shale at 500 feet.

At Ebano

In the Ebano sector of the northern fields, Mexican Petroleum Co.'s No. 18 Ebano, is in gray shale and shells at 1,330 feet; and derricks are up for Nos. 19 and 21. In La Dicha sector, operations follow: Nos. 110 and 112 are in gray lime at 1,950 and 1,500 feet respectively; No. 103 is in brown lime at 1,841 feet; No. 114 is in gray lime at 2,300 feet; No. 1,123 is in pink shale at 400 feet; No. 126 is in blue shale at 90 feet. In the Conteca, No. 112 is in the Tamasopa at 2,200 feet; No. 117 is in blue shale and shells at 1,200 feet; No. 118 is in white lime at 2,300 feet; No. 124 is in gray lime at 1,845 feet; No. 125 is in gray shale at 123 feet; No. 128 is in the same formation at 1,000 feet; No. 129 is in gray lime at 1,265 feet; No. 132 is in gray shale at 120 feet; and No. H-10 Caracol, near Tampico, is in hard gray shale and shells at 1,250 feet. National Lines' No. 112 Conteca, in its Ebano right of way, is in gray and brown lime at 2,200 feet.

South Fields

In the south fields, Cortez Oil Corp.'s No. 13 Aguada has shut down at this time for fuel at 3,700 feet, the drill stopping temporarily in gray shale. Huasteca Petroleum Co., No. 82 Tierra Blanca is in gray shale at 2,225 feet; No. 86 is at a nominal depth of 70 feet; and in Chapopote Nunez, its No. 14-A is in brown shale at 515 feet. International Petroleum Co.'s No. 55 Toteco is spudding in. Mexican Eagle Oil Co.'s No. 2 Poza Rica has shut down for orders in a sandy rock at 2,692 feet; its No. 53, Lot 132 Chinampa is in sticky shale at 1,591 feet.

Northern Miscellany

Among the miscellaneous northern tests the following obtains: In the Corcovado sector, La Corona Petroleum Co. is in brown and white lime at 2,330 feet; No. 28 is in broken lime at 2,060 feet. International Petroleum Co.'s No. 11, Lot 6, has cemented 8-inch at 1,362 feet in the San Felipe. Rich Mex Oil Co.'s No. 6, Lot D, is in a green lime (San Felipe) at 2,880 feet.

In the Limon, Cia. Pet. Franco Espanola (Marland), No. 31-A Limon is in lime shells at 1,450 feet; No. 65 is rigging standard; No. 71 is in limey shale at 645 feet; No. 73 is a derrick.

In the Quebrache, Globe Petroleum Co.'s No. 1, Lot 80, is in pink lime at 2,910 feet; and No. 9, same, continues fishing for tools, with much gas in evidence, at 3,075 feet, in gray lime. National Oil Co.'s No. 8, Lot 75, is in gray shale at 2,400 feet.

Mexican Gulf Oil Co.'s No. 53 Chapacao (Corcovado) is in gray lime at 1,715 feet; No. 54 has cemented 8-inch in a similar formation at 1,111 feet, and its No. 9 Lot 6, Corcovado is in shale at 120 feet.

In the Altamira sector, National Lines' No. 66 Altamira is in blue shale at 950 feet; No. 67 is rigging standard at 1,255 feet in white lime; No. 94 is waiting orders at 1,275 feet, in a sand, wherein a pocket of salt water is reported, and two more locations are actively rigging. Rich Mex Oil Co.'s No. 11, Lot 26, Altamira is in gray lime at 1,810 feet; and its No. 17, same, is in a similar formation at 1,820 feet.

In the Federal Zone of the Panuco River, National Lines' No. 57 Estero Grande is in gray lime at 1,650 feet; No. 93 Halcon has developed a show of salt water at 1,695 feet in white lime, and No. 37 Tanchicuin is a deep hole in gray lime at 2,500 feet.

October Completions

For the month of October, Mexican fields have a total of 61 completions, 55 in the northern fields and 6 in the south fields. The producing wells number 16 in the northern fields and 3 in the south fields. The new production resulting is 11,430 bbls. in the north fields and 6,000 bbls. in the south fields, a total of 17,430 bbls. flush production for the month.

MAGNOLIA CO.'S RUNS AND STOCKS IN OCTOBER

HOUSTON, Tex., Nov. 13.—The runs of the Magnolia Petroleum Co. from the Luling Field during October were 462,843.17 bbls.; from the Lockhart (Lytton Springs) field, 71,741.37 bbls. and from the Mirando Field, 147,483.14. The pipeline department of the company ran 26,629.05 bbls. from the Spindletop deep sand section.

The stocks of the Magnolia Petroleum Co. at the close of October were as follows:

	Bbls.
Oklahoma-Kansas	3,440,253
North Texas	1,725,959
Total	5,166,212

The pipeline department has completed its 8-inch line from the Luling Field to Oilton, near Mirando City, a distance of 185 miles. The line is welded throughout. Three years ago the company laid 185 miles of 8-inch line from the Luling Field to its Beaumont refinery, which was also welded. The extension of 185 miles to Oilton now makes 370 miles of welded line, which is probably the longest all welded line in the Southwest.

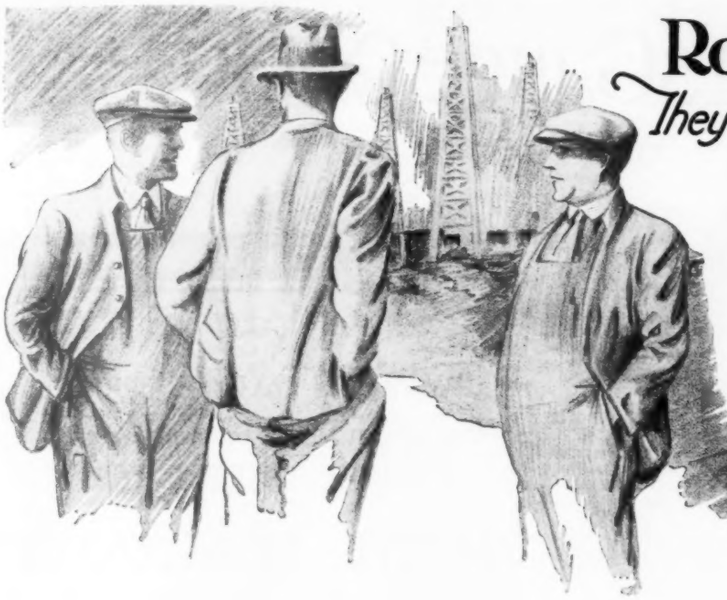
DEATHS IN MEXICO

TAMPICO, Mex., Nov. 13.—Jack Bordeau, a driller on one of the National Lines' Conteca wells, who was severely injured, is reported dead in San Antonio, Tex., where he was removed for special treatment.

Lee Flick, 46, well known here for many years field superintendent for the Huasteca Petroleum Co., during the Doheny regime, is reported dead in Maracaibo, Venezuela, from peritonitis, following an operation for appendicitis.

FATALLY INJURED

SHREVEPORT, La., Nov. 13.—J. R. Orr, shift foreman at the Louisiana Oil Refining Corp.'s Gas Center refinery was fatally injured at the refinery. He was found at the base of one of the condensers. He is believed to have fallen from a condenser box or else was struck on the head by a piece of falling pipe.



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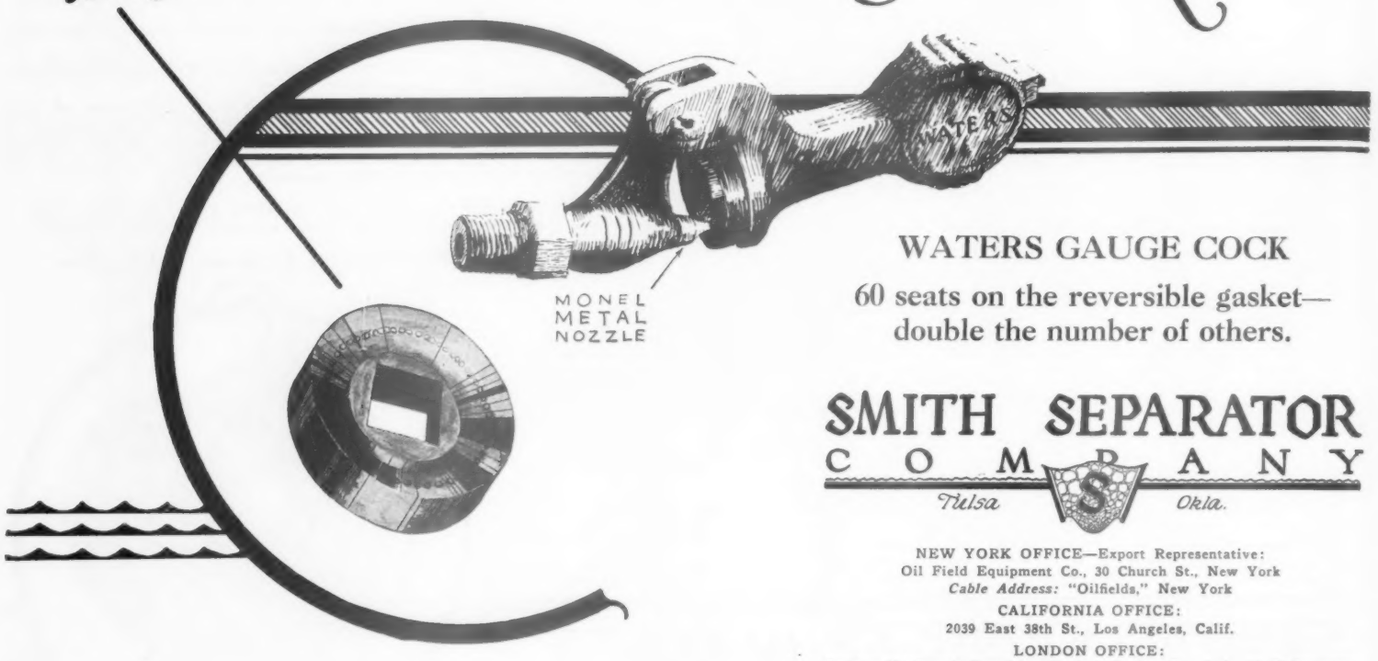

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SOUTHWEST TEXAS

(Continued from Page 56)

cated 150 feet to south and east lines, is drilling at 700 feet.

Old Mirando Field

Crown Central Oil Corp.'s No. 10 Garcia, a deep test, Survey 606, Block 56, located 150 feet to west line and 110 feet to north line, is drilling at 3,980 feet. Murchison & Fain's No. 4 Garcia, Survey 56, located 600 feet to north line and 1,450 feet to west line, set casing in sand at 1,568 feet and tested 10 bbls. and is to drill deeper.

Carolina-Texas

Associated Oil Co.'s No. 1-B Webster, Survey 684, located 450 feet to west line and 1,110 feet to north line, is drilling at 2,834 feet. Morgan Brothers' No. 1 Webster, NW NE NW, Survey 684, located 1,470 feet to west line of survey and 150 feet to north line of survey, is drilling at 2,180 feet. Houston Oil Co.'s No. 1 Benavides, Survey 683, located 1,035 feet to north line and 182 feet to east line, at 3,017 feet, made 10,000,000 feet of gas, with a rock pressure of 960 pounds. M. & N. Drilling Co.'s No. 1 Vela, Survey 1,012, Block 12, located 200 feet to northeast and southeast lines, is drilling at 1,000 feet.

Schott Field

Marshall and others' No. 1 Garcia, Survey 450, located 150 feet to north and west lines, is drilling at 980 feet.

Ina Field—Medina County

The Texas Company is moving 1,400 feet northeast of No. 1 Viola Wilson for the No. 2 Viola Wilson. No. 1 has been abandoned due to losing the hole. Arnett Oil Co.'s No. 4 Nixon, 2,100 feet southeast of No. 3, is resetting casing.

Charco Redondo—Zapata County

Duke and others in northeast one-fourth of Share B, 600 feet northeast of No. 2, has made location for No. 2 Martinez, 150 feet to north line and 750 feet to west line of share. Magnolia Petroleum Co's No. 2 Cuellar, Survey 278, located 2,177 feet to east line and 150 feet to north line of survey and 600 feet east of No. 1, is drilling at 600 feet.

LOUISIANA-ARKANSAS

(Continued from Page 55)

16, is waiting for a standard rig at 1,050 feet, and a derrick is up for No. 11 Powell, 1,120 feet north and 690 feet east SW cor., Section 36-22-16. Standish Oil & Refining Co.'s No. 10 Allen, Section 23-22-15, is drilling at 500 feet.

On The Texas Company's Caddo leases, No. 66 Caddo Levee Board, Section 33-21-16, is a derrick; No. 3 Curtis, Section 14-20-15, cored oil sand at 2,202-12 feet and had a gas blowout at 2,207 feet; arrangements are being made to bail. No. 4 is waiting for cement to set at 2,195 feet; No. 2 Russell, Section 3-20-16, is pumping 15 bbls. of salt water and 1 bbl. of oil at 2,346 feet. Six-inch casing was cemented at 1,350 feet at Tholl Oil Co.'s No. 1 Allday, Section 31-21-15. Six-inch casing was perforated at 1,360-75 feet at Tholl Oil Co.'s No. 1 Edson, Section 32-21-15, and the hole has 800 feet of fluid in it, mostly oil. Six-inch casing was cemented at 1,375 feet at Thompson and associates' No. 5 Muslow, Section 31-21-15, and is drilling ahead at 1,450 feet. Unity Petroleum Co.'s No. 6 Crystal, Section 14-21-16, is drilling at 2,025 feet; No. 7 tested dry at 1,600 feet and is drilling at 1,810 feet. Four and one-half-inch casing with a packer was set at 2,160 feet at Victor Wenzell's No. 2 Hunsicker, Section 15-20-15, and the test is being swabbed to 2,205 feet; No. 3 is drilling at 50 feet, and No. 5 is being rigged. Woodley Petroleum Co.'s No. 1 Muslow, Section 31-21-15, is spudding.

LaSalle Parish

O. W. Clark's No. 6 Tullos, Section 23-10-1e, started flowing 100 bbls. daily from sand at 1,488-1,502 feet. In the north end of Urania, Hunt, McCurry and Zoder's No. 7 Urania, Section 7-10-2e, is flowing 75 bbls. from sand at 1,515-21 feet. H. L. Hunt's No. 5 State, Section 26-10-1e, is pumping 5 bbls. from sand at 1,491-98 feet. Chal Daniel's No. 1 Urania, Section 2-9-1e, was junked and abandoned at 1,495 feet. Shreveport Oil Corp.'s No. 4 Pendarvis, Section 26-10-1e, is flowing 50 bbls. from sand at 1,533-43 feet.

O. W. Clark's No. 3 Miles, Section 25-10-1e, is waiting for 6-inch casing to set at 1,527 feet. Hog Creek Oil Co.'s No. 1 Dawson, Section 6-10-2e, is shut down at 1,528 feet for rig repairs. Louisiana Oil Refining Corp.'s No. 36-B Tremont, Section 25-10-1e, is in sand at 1,563-69 feet waiting for a standard rig. Natural Gas & Fuel Corp.'s No. 1 Missouri Pacific, Section 26-10-1e, is a derrick. The Natural Gas Corp. leased 51 lots in the town of Tullos from the Missouri Pacific Railroad for drilling. However, only a few tests are expected to be put down.

Joyce and Richardson's No. 1 Hatfield, Section 7-10-2e, is drilling at 1,320 feet. Rowe and associates' No. 1 Hatfield, Section 7-10-2e, has 600 feet of oil in the hole from sand at 1,537-41 feet and is waiting for a standard rig; a derrick is up for No. 2, 660 feet north and 50 feet west SE cor. NW NE, Section 7-10-2e. Six-inch casing was cemented at 1,526 feet at C. W. Thompson's No. 1 Winberry, Section 16-10-2e. Ten-inch casing was set at 101 feet at Wetherbee and associates' No. 6-A Urania, Section 2-9-1e. Six-inch casing was cemented at 1,536 feet at O. F. Whittaker's No. 1 Hardtner, Section 26-10-1e. Wingfield and associates' No. 2 Urania, 500 feet north and 250 feet east SW cor. NW SE, Section 2-9-1e, is a rig. Arrangements are being made to test broken sand at 1,531-36 feet at Wooten and associates' No. 2 King, Section 36-10-1e.

Monroe District

Six and five-eighths-inch casing was cemented at 2,260 feet in gummy lime at Gulf Refining Co.'s No. 1 West Virginia, Section 17-17-5e. Harkness and associates' No. 3 Bowles, Section 17-20-5e, is drilling at 900 feet. The plug at 2,155 feet is being drilled at Hatcher and Evans' No. 5 fee, Section 17-19-4e. T. L. James' No. 1 Central, Section 31-20-5e, is drilling at 1,710 feet. Ladell and associates' No. 36 fee, Section 10-19-5e, is drilling at 150 feet. Maurey Drilling Co.'s No. 2 Frierson, Section 20-19-4e, is shut down at 2,000 feet. Ouachita Gas Co.'s No. 6 Smith, Section 37-20-4e, is drilling at 150 feet. Same company's No. 2 D-Arbone, Section 25-19-2e, is being cored at 2,490 feet. Eight-inch casing was cemented at 858 feet at Pioneer Oil & Gas Co.'s No. 1 Jones, Section 17-18-4e. Southern Carbon Co.'s No. 4 Ladell, Section 2-19-4e, is drilling at 1,590 feet. United Carbon Co.'s No. 1 Patton, Section 10-20-4e, is drilling at 1,500 feet. Twelve-inch casing was cemented at 181 feet at United Carbon Co.'s No. 2 Guthrie, Section 5-20-4e. O. M. Grasham's No. 1 Peak, Section 6-20-4e, is waiting for 8-inch casing to set at 800 feet, and No. 1 Williams, same section, is drilling at 800 feet. R. W. Rhodes' No. 1 Hutch, Section 28-23-2, is a rig. United Carbon Co.'s No. 1 White, Section 32-21-4e, is drilling at 1,610 feet.

Webster Parish

I. J. Laborde's No. 1 Bruner, Section 30-19-10, is shut down at 509 feet. J. R. Garrison's No. 1 Hudson, Section 17-19-10, is drilling at 340 feet. Humble Oil & Refining Co.'s No. 5-B Davis, Section 23-21-10, is drilling at 925 feet. Magnolia company's No. 4 Tiner, Section 21-21-10, is drilling with cable tools at 2,467 feet. Magnolia company's No. 2-B Robbins, Section 21-21-10, is being rigged. Ohio Oil Co.'s No. 4 Bank of Cotton Valley, Section 22-21-10, is drilling lime and sand at 3,701 feet. Smitherman and McDonald's No. 1 Oakley, Section 29-23-11, is drilling anhydrites at 5,504 feet.

Union County

Only two oil wells in the proven fields in Union County were completed last week and both were in Lisbon, the youngest of the pools. Unity Petroleum Co.'s No. 5 Snyder, Section 21-17-16, was good for 20 bbls. o nthe pump from sand at 2,128-98 feet, and Rovenger Oil Corp.'s No. 10 Dumas, Section 9-17-16, is pumping 20 bbls. from sand at 2,070-2,100 feet. Howell and Knowles' No. 2 Springer, Section 36-17-16, was abandoned with the casing in the hole at 2,592 feet. The test had tested salt water some time ago and had been temporarily abandoned.

Six-inch casing is being set at 2,165 feet to test 3 feet of sand at 2,168-71 feet at Ackerly and associates' No. 1 Murphy, Section 1-17-16. Six-inch casing was cemented at 2,215 feet at Belmont and associates' No. 1 Hollis, Section 13-18-15. Clark and Greer's No. 1 Le Croy, Section 6-18-15, tested an oil show at 2,170 feet and a sand pump is being run to 2,180 feet. G. J. Childs' No. 5 fee, Section 6-16-6, is drilling at 2,340 feet. The plug at 2,114 feet is being drilled at Constant Refining Co.'s No. 4 Robinson, Section 6-18-15. Crescent Petroleum Co.'s No. 1 Saxon, Section 5-16-16, is a rig. Federal Petroleum Co.'s No. 8 Ballard, Section 10-16-15, is drilling at 600 feet. Gladys Belle Oil Co.'s No. 10 Cook, Section 16-16-15, is drilling at 1,800 feet. W. H. Harper's No. 1 Mathews, Section 34-16-16, is being cored at 2,604 feet. Six-inch casing was cemented at 2,535 feet at H. M. Harrell's No. 7 Flenniken, Section 23-17-16. A derrick pattern is on location for Hollifield and associates' No. 15 Giller, 660 feet north and east SW cor. NW SW, Section 11-16-15.

Humble Oil & Refining Co.'s No. 4 Snydor, Section 21-17-16, is drilling at 1,526 feet. Imperial Oil & Gas Co.'s No. 1-A Ramsey, Section 21-17-16, has 150 feet of oil in the hole from sand at 2,130-34 feet and is waiting for a standard rig; No. 2-A is a derrick and No. 4-A is being delayed by a fishing job at 2,088 feet. The plug at 2,361 feet is being drilled at Keen & Woolf Oil Co.'s No. 3 Murphy, Section 9-16-15. Four and one-quarter-inch casing was cemented at 2,604 feet and Louisiana Oil Refining Corp.'s No. 1-B Murphy, Section 9-16-15, is being drilled in with cable tools at 2,609 feet, corrected depths. Eight-inch casing was stuck at 2,600 feet and 6⅝-inch casing was set at 2,751 feet at Lion Oil & Refining Co.'s No. 6-C Bilyew, Section 8-16-15. Six-inch casing was cemented at 2,121 feet and Lion company's No. 2 Werner, Section 21-17-16; No. 3, SW cor. SE SW, is a derrick. Lion company's No. 8-A Lawton, Section 10-16-15, has 600 feet of oil in the hole from sand at 2,381-84 feet and is waiting for a standard rig.

Other Operations

Magnolia Petroleum Co.'s No. 2 Freeman, Section 7-16-16, is drilling at 2,100 feet. Magnolia company's No. 4 Childs, Section 8-16-16, was dry at 2,617 feet and the liner is being set to test a broken formation at 2,637 feet; No. 7 Halsey, Section 20-17-16, has 300 feet of oil in the hole from broken formation at 2,155-98 feet and is waiting for a standard rig and No. 8 Halsey has sand at 2,146-76 feet and is waiting for a standard rig. A derrick is up for Magnolia company's No. 1 B. T. Laney, SE cor. E half NW NE, Section 8-16-16. Magnolia company's No. 1 Murphy, Section 28-16-16, is drilling at 3,160 feet. Murdock and associates' No. 4 Hays, Section 4-16-15, has 1,700 feet of fluid in the hole, 50 per cent salt water from sand at 2,340-46 feet and is waiting for a standard rig. Same operators' No. 1 Vestal, Section 17-16-15, tested salt water with a show of oil at 2,600 feet and is drilling ahead at 2,612 feet.

Ohio Oil Co.'s No. 5 Stocks, Section 21-17-16, is being bailed to test broken formations at 2,132-72 feet and a derrick is up for No. 6 Stocks, SW cor. NW SW, Section 21-17-16. S. L. Range's No. 1 Ezell, Section 24-16-15, is coring shale at 2,758 feet. Sam Richardson's No. 2-M Murphy, Section 14-16-15, had sand at 2,004-14 feet and is waiting for a standard rig. Six-inch casing was cemented at 2,588 feet at C. L. Saxon's No. 3 fee, Section 4-16-16. Four and one-half-inch casing stuck at 3,419 feet at Southern Crude Oil Purchasing Co.'s No. 10 Graves, Section 3-16-15, and was cemented at that depth, total depth 3,425 feet. Standard Oil Co.'s No. 14 Hardy, Section 9-16-15, an old gas well completed at 2,238 feet in June, 1924, making 45,000,000 feet of dry gas, is being deepened and is drilling ahead at 2,267 feet. Standard Oil Co.'s No. 38 Hardy, Section 4-16-15, topped sand at 2,353 feet, penetrated it 24 feet and is waiting for a standard rig.

Stewart and associates' No. 1 Murphy, Section 9-16-15, which was completed April 4, 1926, at 2,653 feet as a 10,000,000-foot gasser and spraying a little salt water, is to be deepened. Sure Oil Co.'s No. 8 Flenniken, 360 feet north and 1,320 feet east SW cor., Section 5-16-15, is drilling at 1,970 feet. Unity Petroleum Co.'s No. 6 Snydor, Section 21-17-16, is drilling at 1,600 feet and 12½-inch casing was set at 40 feet at No. 7 Snydor.

Ouachita County

Copenhaven and associates' No. 2 Berg, Section 13-15-17, tested salt water at 2,200 feet and was abandoned at that depth with the casing in the hole. Ohio Oil Co.'s No. 19 Cramer, Section 27-15-16, is pumping 30 bbls. of fluid, 50 per cent salt water, from sand at 2,024-34 feet. Vandiver and associates' No. 1 Yarbrough, Section 22-14-17, was junked and abandoned at 1,724 feet.

Gulf Refining Co.'s No. 8-A Bennett, Section 33-15-15, is being rigged up to deepen at 2,686 feet. W. R. Keever's No. 2 Neeley, Section 27-15-16, is to be put on the beam at 2,272 feet; No. 3 is a rig. Keever's No. 2 Hicks, Section 27-15-16, is a rig. Little Fay Oil Co.'s No. 3 Robertson, Section 25-15-16, is being bailed to test at 1,983-2,036 feet. A derrick is up for Magnolia Petroleum Co.'s No. 6 La Grone, SW cor. SE SW, Section 36-15-17. Ohio Oil Co.'s No. 20 Cramer, Section 27-15-16, is drilling at 1,760 feet. Simms Oil Co.'s No. 6 Murphy, Section 28-15-15, is drilling at 2,480 feet. A. M. Sutton's No. 2 Schoolhouse, Section 28-15-16, is being reamed to the bottom at 2,461 feet. The plug at 1,968 feet is being drilled at Woodley Petroleum Co.'s No. 3 Berg, Section 32-15-15.

Columbia County

Crosbie and associates' No. 5 Womack, Section 1-16-20, had sand at 2,217-24 feet and is waiting for a standard rig. Gulf Refining Co.'s No. 1 Huggins, Section 31-17-22, is drilling sand at 2,307 feet. Kentucky-Arkansas Petroleum Co.'s No. 1 Peter Doss, Section 29-19-20, is shut down at 2,600 feet for orders. Magnolia Petroleum Co.'s No. 1 Sawyer, Section 1-16-20, was dry in sand at 2,230-40 feet and is waiting for orders; a derrick is up for No. 2 Sawyer, NW cor. SE NE. Scott Phillips' No. 2 Davis, Section 6-18-20, has been started up after several weeks of idleness and is drilled to 2,145 feet in sandy shale and shut down for orders.

Nevada County

Humble Oil & Refining Co.'s No. 1 Womack, Section 16-14-21, was abandoned at 1,248 feet. Ohio Oil Co.'s No. 1 McKinney, Section 9-14-21, is pumping 20 bbls. from sand at 1,179-86 feet. Humble Oil & Refining Co.'s No. 4 Bodcau, Section 10-14-21, is drilling hard lime at 3,195 feet. Humble company's No. 2-C Groves, Section 1-14-21, is drilling at 300 feet. Advance Oil Co.'s No. 1 McKinney, Section 9-14-21, is drilling gumbo at 950 feet.

ARTESIA, NEW MEXICO

Continued from Page 64)

ding No. 1 on the Keel permit in the SE SE, Section 10-17-31.

On the caprock, Ingelfield & Bridges in Section 4-17-34 have resumed drilling at 1,600 feet. Henderson, Dexter & Blair, in Section 34-17-33, are setting 1,520 feet of casing and have made a location for a second test to be drilled in Section 4-20-34, in the southeast trend.

In southeastern Eddy County, the Sun Oil Co. picked up a good oil sand at 3,758 feet, in its No. 1 in Section 21-25-30. This will be a 4,000-foot test.

It is reported that the Marland Oil Co.'s first location east of Carlsbad will be in Section 14-22-29, the drilling of the well to be a joint venture with the Ohio Oil Co.

Drilling Eddy County

Eaton & Co.'s No. 1 Brainard, NE cor. SW, Section 5-18-27, fishing for bit at 2,135 feet; Flynn, Welch & Yates' No. 53, Section 32-18-28, cleaning out after

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shot; No. 54, SE Section 29-18-28, on production; Hamilton Petoleum Co.'s No. 1 Billings, Section 12-19-26, trying to cement off water at 1,100 feet; Henderson, Dexter & Blair's No. 1, NW cor. Section 9-19-28, preparing to resume drilling at 1,565 feet; Merriweather's No. 1 Goodale, Section 19-28-29, fishing; Navajo Oil Co.'s No. 2, Section 28-17-28, drilling at 2,100 feet; Ohio Oil Co.'s No. 7 Toomie Allen, SW cor. Section 28-18-28, drilling below 2,560 feet; Prairie Oil & Gas Co.'s No. 1, SE SE, Section 10-17-31, spudding in; Pueblo Oil Co.'s No. 2, SE cor. Section 33-17-28, location; Sun Oil Co.'s No. 1, Section 21-25-30, preparing to straightream to 3,763 feet; Bruce Sullivan's No. 1, SW cor. Section 1-18-31, straightreaming to 3,465 feet; Wooley & Jones' No. 1 Beeson, SE cor. Section 33-17-30, shut down; No. 1 McIntyre in C SE Section 21-17-30, drilling below 200 feet; Williams Petroleum Co.'s No. 5, Section 17-18-28, drilling below 2,400 feet.

Chaves County

Buffalo Roswell's No. 1, Section 25-11-27, drilling below 3,852 feet; Etz & DeVito's No. 1, NW SE, Section 24-11-25, cleaning out at 840 feet; Gibson Oil Corp.'s No. 1 Forsyth, C NW, Section 8-11-23, drilling below 550 feet; The Texas Company's No. 1 Dunken Dome, SW Section 29-17-18, drilling at 2,420 feet.

Lea County

Cap Rock Oil & Gas Co.'s No. 1, SE Section 11-16-32, drilling below 740 feet; Henderson, Dexter & Blair's No. 1 Wyatt, SW SW, Section 34-17-33, setting 10-inch casing at 1,520 feet; Inglefield and others' No. 1, Section 4-17-34, underreaming with 10-inch, 60 feet off bottom; Maljamar Oil & Gas Corp.'s No. 1 state lease, SE Section 16-17-32, setting 8-inch casing at 2,922 feet; T. P. McDonald's No. 1, NE Section 22-18-34, shut down at 200 feet; Grace Mitchell's No. 1, SW cor. Section 5-17-32, shut down for fuel at 2,280 feet; Ohio Oil Co.'s No. 1 William Mitchell, NE cor. SW, Section 18-17-32, drilling below 3,540 feet; No. 1 Jewett permit, in Section 6-18-33, drilling validation hole at 250 feet.

Curry County

Frio Oil Co.'s No. 2 Saunders in Section 11-5n-35e, no report; Steinberger's No. 1, C NE, Section 21-3n-35e, location.

Quay County

Argo Oil Co.'s No. 1, Section 5-17-31, location; Gibson Oil Co.'s No. 1, NW Section 25-8-32, drilling below 500 feet; Ohio Oil Co.'s No. 1, Section 24-7n-29e, drilling below 200 feet.

PANHANDLE LOCATIONS

(Continued from Page 51)

Muller, 3,542 feet south and east NW cor. George Ivy Survey, A-516, being 660 feet south and east NW cor. Lot 8.

Crane County

Marland Oil Co. & Zoch's No. 1 Cowden Brothers-B, 330 feet north and west SE cor. NE, Section 81, Block X, C. C. S. D. & R. G. N. G. Survey. Zweifel and others' No. 1 W. H. Cowden Co., 330 feet north and west of SE cor. NE, Section 8, Block X, same survey.

Denton County

H. E. Rondeau & Sanford's No. 1 J. M. Atkins, 6,600 feet north and 5,350 feet west SE cor. William A. Thompson Survey, being at center east 50 acres J. M. Atkins 100-acre tract in Lot 19.

Eastland County

Applegate and others' No. 2 L. P. Cunningham, 150 feet south and west of the most northerly NW cor. of M. Fury Survey, and located in B. H. Epperson Survey. Arkansas Fuel Oil Co.'s No. 7 C. U. Connellee, 176 feet north and 329 feet west SE cor. west 500 acres M. Ussury Survey. Belfa Oil Co.'s No. 1 G. W. Dobbs and others, 300 feet north and 1,000 feet west SE cor. of NW, Section 10, Block 4, H. & T. C. Survey. Vacuum Oil Co.'s No. 1 J. W. Brown, 150 feet north and west SE cor. SW NW Section 110, Block 3, H. & T. C. Survey.

Howard County

Magnolia Petroleum Co.'s No. 1 Hyman Chalk, 1,650 feet north and 2,310 feet west SE cor. Section 95, Block 26, W. & N. W. Survey; No. 2 Mary Chalk, 330 feet south and 990 feet west NE cor. Section 124, Block 29, same survey; No. 5 Otis Chalk, 2,310 feet north and 990 feet east SW cor. Section 114, Block 29, same survey; No. 6, 330 feet north and 990 feet east SW cor. of same section; No. 5 Otis Chalk-A, 1,650 feet south and 330 feet west NE cor. Section 113, Block 29, same survey; No. 6, 1,650 feet north and west SE cor. same section Marland Oil Co.'s No. 5 Otis Chalk, 990 feet north and 2,310 feet west SE cor. same section.

Jack County

C. F. Ralph and others' No. 1 Tom Nash, 660 fe et south and east NW cor. J. M. Rogers Survey, A-1,420. Security Drilling Co.'s No. 1 J. E. Henderson, 150 feet north and west SE cor. John Hill Survey, A-311.

Jones County

Garland & Diamond's No. 1 E. D. Glynn, 330 feet north and west SE cor. Section 18, Deaf & Dumb Asylum Lands. Gusham, Hunter & Wyland's No. 1 George B. Birchfield, 2,500 feet north and 5,210 feet west SE cor. Harrison County School Land, No. 333; No. 1 Williams, 200 feet south and 7,922 feet east of NW cor. of same school land. Hutson & Weaver's No. 1 A. T. Smith, 660 feet north and 2,563 feet east SW cor. Section 51, Block 18, T. & P. Survey.

Mitchell County

B. E. Walter and others' No. 1 J. E. Dollen, 2,310 feet north and 330 feet east of SW cor. Section 11, Block 27, T. & P. Survey. The California Co.'s No. 2 J. J. Handley, 1,650 feet north and 330 feet east SW cor. Section 12, Block 28, T-I-N, T. & P. Survey.

Montague County

Cato Oil Co.'s No. 4 C. L. Rolls Estate, 1,000 feet north and 200 feet east SW cor. C. L Rolls Estate 100-acre tract J. Chambliss Survey, A-123. Continental Oil Co.'s No. 1 J. W. Maddox-B, 150 feet south and 2,250 feet east NW cor. C. W. Thompson Survey, A-741, being 150 feet south and west of NE cor. of 37-acre lease; No. 19 J. W. Rowland, 643 feet south and 150 feet east NW cor. of 71-acre lease J. Chambliss Survey, A-123; No. 14 N. J. Howard and others, 1,590 feet north and 150 feet east SW cor. of 150-acre lease out of same survey; No. 12 J. W. Rowland and others-A, 150 feet south and 500 feet west NE cor. of "A" lease out of the same survey; No. 6 J. W. Rowland and others-B, 790 feet north and 150 feet west SE cor. 105-acre "B" lease, E. Votaw Survey, A-827; No. 3 J. W. Rowland-C, 150 feet north and east SW cor. 25-acre "C" lease, same survey. McMan Oil & Gas Co.'s No. 3 N. J. Howard and others, 150 feet south and 258 feet east NW cor. lease, J. Chambliss Survey, A-123. Washington Oil Corp.'s No. 1 W. D. Barclay, 300 feet NW of SE line and 150 feet SW of NE line W. D. Barclay 94-acre tract out of J. Deck Survey A-179.

SPECIAL MACHINERY IS CONSTRUCTED FOR TEST

(Continued from page 59)

No. 54 T. & N. O., an inside location, is also rigging. The Sun Oil Co.'s No. 3 McLean is drilling around 4,985 feet. No. 2 McLean is deepening at 3,535 feet. No. 6 is around 4,154 feet and No. 7 is shut down at 3,400 feet. No. 8 McLean is below 2,356 feet.

The Atlantic Oil Producing Co.'s No. 5 McLean is drilling around 3,455 feet. No. 10 is shut down at 4,140 feet. No. 12 is around 4,235 feet. Derricks are up for Nos. 14, 16 and 17. The Turnbow Oil Co.'s No. 1 Banks is milling at 3,426 feet. No. 2 is fishing at 3,900 feet. The Deep Sand Oil Co.'s No. 1 Rush is shut down at 3,514 feet. Hines' No. 1 Ewing is idle at 4,008 feet. Paggi Brothers' No. 1 Gordon is drilling deeper at 4,710 feet. The Walker Oil Co.'s No. 1 Quinn is deepening at 4,645 feet. The Denny Oil Co.'s No. 1 Gladys is drilling around 1,675 feet. The Hyland Oil Co.'s No. 1 McFadden is drilling below 3,565 feet. The United Oil Co.'s No. 91 McFaddin is around 2,235 feet. The Yount Lee Oil Co. is drilling Nos. 19, 21 and 22 McFaddin and Nos. 13 and 14 fee and No. 13 Gladys.

Derricks are standing for the Magnolia

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Reliance Insurance Co., Philadelphia, Pa.
Rochester Dept. of Great American, New York, N. Y.
Royal Exchange Assurance Co., London, Eng.
Royal Insurance Co., Ltd., Liverpool, Eng.
Scotch Underwriters, Edinburg, Scotland
Scottish Union & National Ins. Co., Edinburg, Scotland
Security Insurance Co., New Haven, Conn.
Sentinel Fire Insurance Co., Springfield, Mass.
Springfield Fire & Marine Ins. Co., Springfield, Mass.
St. Paul Fire & Marine Ins. Co., St. Paul, Minn.
Star Insurance Co. of America, New York, N. Y.
Sun Insurance Office, London, Eng.
Svea Fire & Life Ins. Co., Gothenburg, Sweden.
Superior Fire Ins. Co., Pittsburgh, Pa.
Travelers Fire Insurance Co., Hartford, Conn.
Union Assurance Society, London, Eng.
Union Insurance Society of Canton, Hong Kong
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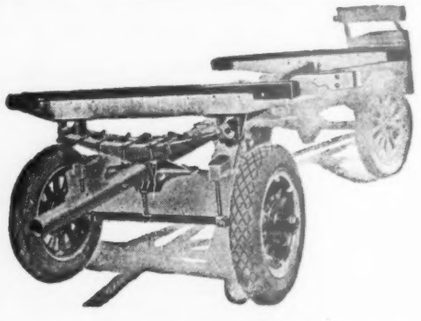

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Petroleum Co.'s No. 2 fee on the extreme south end of the deep sand section and the Plummer Oil Co.'s No. 1 Quinn.

New Crude Prices

The Humble Oil & Refining Co. readjusted its Spindletop quotations effective November 10, as follows:

"A" grade	$1.40
"B" grade—	
Below 25 gravity	1.40
25 to 25.9	1.45
26 to 26.9	1.50
27 to 27.9	1.55
28 to 28.9	1.60
29 to 29.9	1.65
30 to 30.9	1.70
31 to 31.9	1.75
32 to 32.9	1.80
33 to 33.9	1.85
34 to 34.9	1.90
35 and above	1.95

Heretofore the Humble company had special postings on Spindletop crude, but the new schedule puts it on the same basis as Goose Creek, Hull, West Columbia, Orange, Boling, Pierce Junction, which are the other pools in which it is a buyer of crude.

Coastal crudes are divided into grades "A" and "B" by all the pipelines. "A" grade is defined as follows: Viscosity, not less than 100 seconds at 100 degrees Fahrenheit Saybolt; sulphur, not over 4 per cent; Baume gravity, not over 25 degrees at 50 degrees Fahrenheit; cold test or distillates having a viscosity of 1,000 seconds at 100 degrees Fahrenheit shall not be over 50 degrees Fahrenheit.

"B" grade embraces all coastal crude which does not meet the test for "A" grade crude.

The Yount Lee Oil Co. has forty-two 55,000-bbl. steel tanks at its tank farm located close to the Neches River and east of the deep sand section and is putting its production into storage. The company has been completing storage at the speed of one tank a day. Eight more tanks will be erected on the present contract.

GULF COAST

(Continued from Page 59)

feet and No. 78 is rigging to commence drilling. No. 18 Hannah is below 4,910 feet and No. 19 Hannah at 3,865 feet. The Texas-Vacuum Oil Co.'s joint No. 6 Hannah is drilling around 3,415 feet. No. 4 Merchant is at 3,235 feet. The Humble Oil & Refining Co.'s No. 4 Hooks-Spell is drilling at 3,218 feet. The Empire Gas & Fuel Co.'s No. 22 Barngrover is at 3,310 feet. The Houston Production Co.'s No. 8 Taylor is at 2,875 feet. The Mecom Oil Co.'s No. 1 Seale is sidetracking at 3,465 feet.

The Vacuum Oil Co. abandoned No. 9 Barrett in the old part of the South Liberty Pool at 3,080 feet. It was a workover. The Associated Oil Co.'s No. 1 Tadlock is around 2,000 feet. The Texas Company's Nos. 5 and 6 Staiti are rigging. On the west side of the Trinity River in the new extension, the Humble Oil & Refining Co.'s No. 5 Welder is rigging. The Gulf Production Co. has a location for No. 1 Marshall. Rains interfere with work on the west side of the river, as a rise in the stream overflows the bottom lands.

Well at Barber Hill

The Bennett Production-Humphrey Corp.'s No. 2-B Kirby on the east side of the Barber Hill Dome in Chambers County, 12 miles northeast of the Goose Creek Pool, is being tubed with 2½-inch tubing. Screen was set in 33 feet of sand at 4,116 feet, but the well will not flow. The oil stands well up in the hole. It is 23.3 gravity. It is estimated the well will pump and flow 600 bbls. initial when it is put on the beam. It is 1 mile east of production across the saline dome. The Humble Oil & Refining Co.'s No. 4 Myers on the southwest side of the dome is reported showing oil at 2,950 feet. Screen will be set and a test made.

In the Orange Pool, the Rex Petroleum Co.'s No. 2 Carbello is bailing at 3,600 feet. The Humble Oil & Refining Co.'s No. 25-A Chesson is doing the same at 3,492 feet. The Texhoma Oil Co.'s No. 6 Chesson is bailing at 3,690 feet.

The Gulf Production Co.'s No. 3 Granger is drilling at 2,875 feet. The Humble Oil & Refining Co.'s No. 7 Winifree is drilling around 3,910 feet. The Brownie Babbittee Oil Co.'s No. 1 McLean is working over. The Ryeade Petroleum Corp. is cutting the liner in No. 2-C Cow Bayou at 4,650 feet, and the Texhoma Oil Co. is doing the same in No. 16 Chesson at 4,600 feet.

The Humble Oil & Refining Co.'s No. 10 Winifree, reported last week as flowing 1,600 bbls. at 3,600 feet, is flowing 200 bbls. this week, and the Brownie Babbittee Oil Co.'s No. 7 McLean, reported as a 1,200 bbls. of fluid, 20 per cent sediment and water at 3,600 feet, is heading 250 bbls. this week.

Fort Bend County Pools

In the Big Creek district, 7 miles south of Richmond, Fort Bend County, the Gulf Production Co.'s No. 33 Davis is good for 100 bbls. at 3,500 feet.

The Gulf company is drilling No. 12 Wheat there at 1,765 feet, and rigging Nos. 35 and 36 Davis. The Texas Company's No. 2 fee is drilling around 3,410 feet.

At Blue Ridge, on the south flank of the dome, the Humphreys Corp.'s No. 1 West-Schenck is at 3,314 feet. The Gulf Production Co.'s No. 2 West-Schenck is drilling around 3,090 feet. The Gulf company's No. 9 Luscher, on the east side is at 3,819 feet. No. 8-B Blakely is below 2,655 feet. On the west side, the Navarro Oil Co.'s No. 1 Robinson is at 3,325 feet. The Texhoma Oil Co.'s No. 2 Booth is fishing at 3,250 feet.

The Ryeade Petroleum Corp. has three rigs running at Nash Dome and the Gulf Production Co. has one at Orchard Dome, southwest of Rosenburg.

In the West Columbia Pool, on the north side, The Texas Company's No. 12 Abrams is showing oil at 3,018 feet. Its No. 82 Hogg is beling placed on air at 2,970 feet. The Hyde Production Co.'s No. 2 H. Masterson is drilling around 3,236 feet.

The Sun Oil Co.'s deep test at High Island, Galveston County, is nearing 5,100 feet. No. 11 Cade is drilling around 2,875 feet. The Island Oil Co.'s No. 1 McCarthy is drilling around 2,455 feet.

The Power Production Co., Ryeade Petroleum Corp., and Houston-Gulf Gas Co. are each drilling one well in and around the old Markham Pool, near Bay City, in Matagorda County.

South Louisiana Pools

In the Vinton Pool, the Gulf Refining Co.'s No. 57 Gray is a 10-bbl. pumper at 2,310 feet.

In the Lockport Pool, the Vacuum-Gulf joint No. 11 Miller is bailing at 3,720

These interests have the deepest hole in the Coastal Country there in No. 4 Lock-Moore. Casing is being set at 6,305 feet. No. 2 Bordages is fishing for liner. No. 6 Miller is doing the same thing. Nos. 8 and 12 Miller are idle, the former at 4,400 feet. No. 4 Bordages is rigging. No. 2 Bayou D'Inde is drilling around 3,415 feet. No. 4 Farquhar is at 3,355 feet. The Sweet Lake well is the deepest producer.

Milam County

In the Rockdale-Minerva shallow sand section of Milam County, the Texas Petroleum Co.'s No. 11 Nichaus is drilling, as is Coffield and Hale's Nos. 4 and 5 Dee. The Wahpoo Oil Co.'s No. 13 Gross is drilling.

In the Boling Pool, Wharton County, The Texas Company's No. 11 Taylor is at 675 feet. The Vacuum Oil Co. has a location for No. 1 Owens on the northeast flank. The Texas Company's No. 1 Farmer, on that side, is drilling around 4,660 feet in sandy shale. The Sun Oil Co.'s No. 1 Farmer, is idle at 1,988 feet with a location made for No. 2 Farmer, 500 feet east of No. 1. Weed and Gayle company is starting No. 3 Bunker and No. 4 Bay, on the dome, and R. E. Brooks, Jr., No. 1 Neckert. Shallow sand production is found on the dome.

For the information of those at a distance who follow these reviews because of interests in the way of land holdings or otherwise, the following pools and semi-pools are west or southwest of Houston: Boling, Damon Mound, West Columbia, Orchard, Big Creek, Nash, Stratton Ridge, Blue Ridge and Markham. The Pierce Junction Pool is 8 miles south. Piedras Pintas is in Duval County, but is included in the Coastal summary because it is a salt dome proposition. The rest

of the districts carried in the daily average production list are east of Houston.

COASTAL WILDCATS

Brazoria County

Stratton Ridge: Gulf Production Co.'s No. 1 Perry will be drilled deeper from 3,200 feet, where it bailed salt and sulphur water. It is on the south side of the dome. Rattlesnake Mound: The Texas Company's No. 2 Mayes, rigged. Allen Dome: Roxana Petroleum Corp.'s No. 3 Allen, drilling below 4,000 feet. No. 1 Allen around 2,500 feet. Clement Dome: Roxana Petroleum Corp.'s No. 1 Pabst abandoned at 1,639 feet in cap rock. A derrick is up for No. 2 Pabst. No. 3 Clemens drilling around 3,175 feet.

Jefferson County

Fannette Dome: Gulf Production Co.'s No. 2 Bordages sidetracking at 4,854 feet. No. 9 Thomas drilling at 3,945 feet. Brooks and others' No. 1 Young, 5 miles south of Spindletop, shut down repairing the rig at 2,575 feet. Port Arthur Development Co.'s No. 4 West, drilling around 1,900 feet.

Harris County

M. Katter's No. 1 Crews, 5 miles west of Humble, drilling at 2,476 feet. North of Spring, Brain and others' No. 1 shut down. Near Tom Ball, Rondondo Oil Co.'s No. 1 Lentz, a derrick.

Wharton County

Near Malone, 5 miles west of Wharton, J. W. Rich and Humphreys Corp.'s No. 1, idle at 2,008 feet, waiting on heavier rig.

Hardin County

Near Olive, Van Petty's No. 1 drilling. E. J. Robertson rigging to deepen No. 1 Weiss.

Refugio County

Refugio gas district: Houston-Gulf Gas Co. drilling No. 1 Atkins, No. 1 Buckley, and No. 3 Skelly.

St. Mary Parish, Louisiana

Grand Lake: Border Research Co. (E. F. Simms) No. 1 Grand Lake, rigging. The Gulf Refining Co. has started No. 41 Star in the Vinton Pool.

INCREASING VOLATILITY OF MOTOR GASOLINE

(Continued from Page 41)

relatively high speeds, and that a fuel volatility corresponding to that of 15 per cent natural gasoline blend gives the best acceleration at low speeds.

The two engines used in the above tests were equipped with manifolds heated by the full heat of the exhaust. Further tests were made on a six-cylinder, valve-in-head, water-cooled engine (engine No. 2) equipped with an intake manifold heated by the full heat of the exhaust only when the throttle is nearly closed. As the throttle is opened, a butterfly valve in the exhaust pipe is opened automatically, allowing the exhaust gases to pass directly through the exhaust pipe without heating the intake manifold. Acceleration tests were made on this engine with the carburetor adjusted for maximum power using straight-run refinery gasoline in the same manner as has been described. The results (Table 2 and Figure 3) are different from those obtained on engines in which the entire heat of the exhaust strikes the intake manifold, in that there is less difference between summer and winter conditions, and the best acceleration is obtained with the most volatile fuel under conditions of warm weather.

Table 2

Percentage Natural Gasoline No. 1 Blend	Minutes to Accelerate 500 R. P. M. to 1,400 R. P. M. Summer Conditions	Winter Conditions
0	0.120	0.112
10	0.109	0.1085
25	0.108	0.102
50	0.104	0.101
100	0.102	0.100

Tests With Blends

Further tests were made with blends of a typical U. S. Motor fuel (No. 13) containing 10, 20, 35, 50 and 75 per cent of a natural gasoline, the natural gasoline sample 25, the natural gasoline sample 26, a low endpoint gasoline 106, and a low endpoint gasoline 100. The A. S. T. M. distillation curves of these fuels are given in Figures 5, 6, 7. These tests were made with the carburetor and engine adjusted for maximum power, on fuel 13.

These tests representing summer conditions (Figures 8 and 9) on engines 1 and 3, each of which has a large amount of heat supplied to the manifold, indicate less improvement in performance,

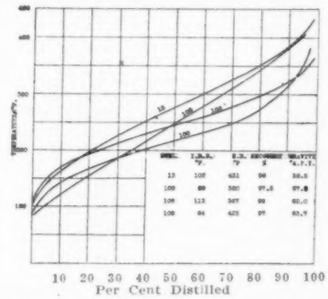

Figure 7—A. S. T. M. Assay Distillations.

as the gasoline is made more volatile than motor 2 and motor 4.

With motor 2 only a limited amount of heat is supplied to the manifold at open throttle, and with engine 4 all of the heat is supplied in the air which is taken into the carburetor.

The tests representing cold weather conditions (Figures 10 and 11) marked improvement in performance in all cases, as the more volatile fuel is used, and clearly indicate the necessity of the volatile compounds such as are contained in natural gasoline for good acceleration of a cold engine.

Use of Natural Gasoline

The improvement in performance is very marked as natural gasoline is added to the U. S. Motor gasoline in proportions up to about 50 per cent of natural gasoline with 50 per cent of U. S. Motor

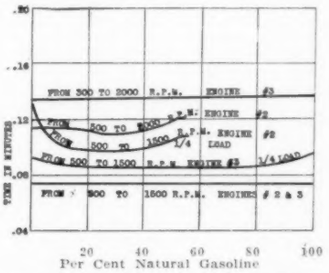
.20
.16
.12
.08
.04
FROM 300 TO 2000 R.P.M. ENGINE #3
FROM 500 TO 2000 R.P.M. ENGINE #2
FROM 500 TO 1500 R.P.M. ENGINE #2 1/4 LOAD
FROM 500 TO 1500 R.P.M. ENGINE #3 1/4 LOAD
FROM 500 TO 1500 R.P.M. ENGINES #2 & 3
TIME IN MINUTES
20 40 60 80 100
Per Cent Natural Gasoline

Figure 8—Time required for acceleration under summer conditions. Motors 2 and 3.

gasoline. Further additions of natural gasoline do not seem to make an equivalent improvement in performance. These facts would suggest that it would seldom be necessary to use a blend containing more than 50 per cent of natural gasoline to obtain the desired engine performance, although blends containing 70 per cent are marketed with complete satisfaction in cold weather.

These tests also bring out a very interesting comparison between low endpoint volatile fuels and fuels of similar volatility having a higher endpoint and a lower initial. Fuel 106 with an endpoint of 367 degrees Fahrenheit shows poorer acceleration than fuel 13, with an endpoint of 430 degrees Fahrenheit. Yet the distillation curve (Figure 7) of 106 below that of 13 except in the range below 190 degrees Fahrenheit. The same fact is indicated by comparing fuel 100 with an endpoint of 380 degrees Fahrenheit with fuel 108 with an endpoint of 425 degrees Fahrenheit. The distillation curve of 100 lies below that of 108 except in the range below 190 degrees Fahrenheit, yet fuel 108 made by blending natural gasoline 25 with U. S. Motor gasoline 13, so that the blend contains 20 per cent of natural gasoline, shows about as good engine performance as the low endpoint fuel 100.

These facts are direct evidence that a low endpoint is not necessary for ease of starting or good performance in cold weather, but that typical U. S. Motor gasoline can be blended with natural gasoline to produce a fuel having the necessary volatility to give equally good starting and acceleration as any low endpoint

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HOSE MASK

Supplies a continuous stream of fresh air to workers in tank cars, oil tanks or in any confined gaseous space.

Fresh, cool air blowing over the face of the worker enables him to work for long periods in absolute safety.

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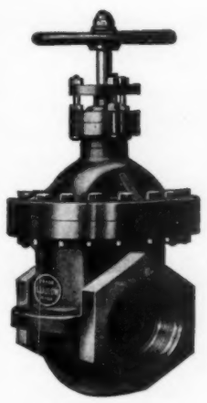

are not determined by the original costs but by the service rendered and the cost of upkeep over a period of years.

Judged on this basis LUDLOW DOUBLE GATE VALVES are the most economical valves you can buy.

Let our nearest office prove this statement to you by telling you the wonderful record of success back of LUDLOW DOUBLE GATE VALVES.

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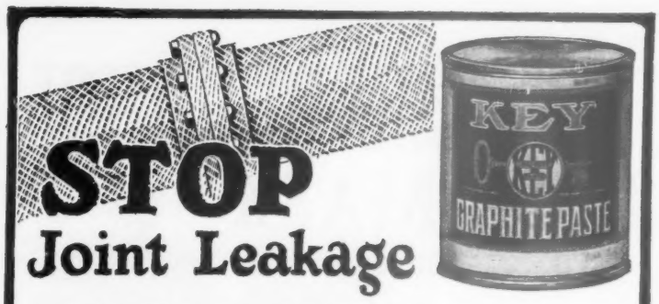

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Use Key Graphite Paste. It renders connections absolutely leakproof.

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Key Graphite Paste stops all such leakage. It fills every crack and crevice. It seals all threaded connections as well as flange joints so that oil or its distillates cannot pass. Containing no oil itself, it is insoluble in oil and therefore remains permanently intact.

In addition, when applied to screw threads before coupling up, it lubricates as it seals, making joints easy to tighten and easy to break.

Key Graphite Paste is used throughout the oil industry. It is used by over 70% of the largest refineries in the United States. It successfully overcomes the most severe conditions in cracking stills where hot oil under pressure is noteworthily difficult to keep from leaking at joints.

Order by barrel, half barrel or in 60 lb. drums, 1, 3, 5 or 10 lb. cans.

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KEY Graphite Paste

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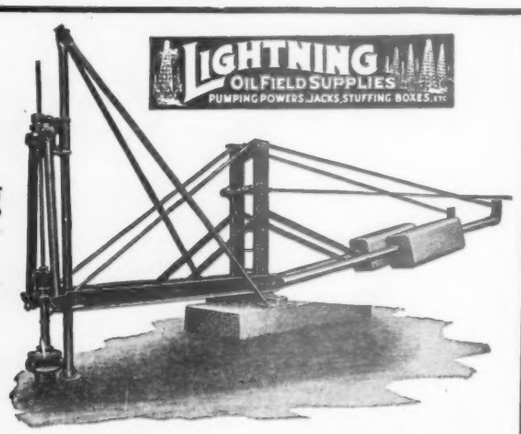

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Where, of necessity, light load on pull rods is needed. Long stroke. Polish rod moves in perfectly straight up and down movement. Fulcrum point not over 12 in. above floor—will not get out of line like those highly elevated. Only light concrete foundation required—lowest cost to install. *Made in two sizes.* Heavy pattern for wells over 2500 ft., wt. 1500 lbs. Light pattern for wells up to 2500 ft., wt. 1200 lbs.

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Oil Field Supplies **Kansas City, Mo.**

gasoline. A comparison of the distillation curves of these fuels indicates that the part of the curve below 190 degrees Fahrenheit is equally important, if not actually more important, than the part of the distillation curve above 190 degrees Fahrenheit.

So far as engine performance is concerned, a 370 endpoint gasoline may be no better than a 430 endpoint product, and the 430 endpoint product can be made just as good in starting, acceleration, power and mileage, if properly blended with natural gasoline, as any low endpoint gasoline.

Percentage Needed

Our program includes a careful study to determine the amount of natural gasoline that should be blended at different seasons to give the best results. This work has not been completed, but sufficient progress has been made to recommend the following rule with entire confidence that it is conservative, that no trouble should be experienced either in handling through station pumps or in vaporization in gasoline lines or vacuum tanks, if the following suggestion is properly followed:

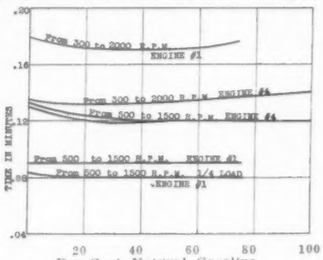
.20
.16
.12
.08
.04
TIME IN MINUTES
From 300 to 2000 R.P.M. ENGINE #1
From 300 to 2000 R.P.M. ENGINE #4
From 500 to 1500 R.P.M. ENGINE #4
From 500 to 1500 R.P.M. ENGINE #1
From 500 to 1500 R.P.M. 3/4 LOAD ENGINE #1
20 40 60 80 100
Per Cent Natural Gasoline

Figure 9—Time required for acceleration under summer conditions. Motors 1 and 4.

In order to give more nearly constant engine performance with no changes in adjustment, the amount of natural gasoline in the blend should be increased 5 per cent for every 5 degrees Fahrenheit drop below 70 degrees Fahrenheit in atmospheric temperature.

Any change in atmospheric temperature above 70 degrees Fahrenhit can be neglected, for example: If a fuel used under atmospheric conditions of 95 degrees Fahrenheit gives satisfactory performance, and the same performance is desired under atmospheric temperature of 60 degrees Fahrenheit the above suggestion indicates that 10 per cent of natural gasoline should be added. The 10 per cent being obtained as the difference between 70 and 60, because the atmospheric temperature has dropped 10 degrees below 70. As much as 35 per cent of natural gasoline (95 minus 60) should be added only after careful testing, as excessively volatile fuel causes trouble in station pumps and may vaporize in the gasoline line or vacuum tank. For this reason, the average maximum atmospheric temperature should be carefully considered with the average temperature. If a fuel is to be used in a district where the temperature varies rapidly between 30 degrees and 50 degrees Fahrenheit the possibilities of using the fuel under atmospheric conditions corresponding to 50 degrees Fahrenheit must be taken into consideration. It also seems unnecessary, at the present time, to recommend more than 50 per cent of natural gasoline in a motor fuel blend, even when the fuel is to be used at temperatures considerably below the freezing point.

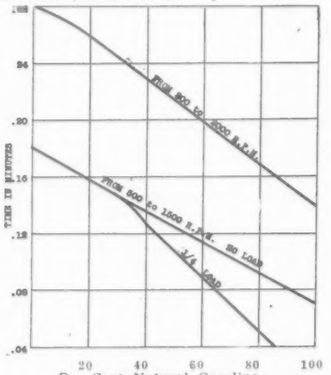

Figure 10—Minutes required for acceleration under winter conditions. Motor 1.

The practical difficulties of carrying out the above suggestions in detail are fully realized. Nevertheless these are the facts obtained from our investigation and, if practical to the minute degree recommended above, would be a perfectly sound proposition so far as engine performance is concerned.

The general conclusion drawn from the above suggestion that more natural gasoline should be added to U. S. Motor fuel when it is to be used under conditions of low atmspheric temperature than to U. S. Motor fuel to be used under conditions of high atmospheric temperature, is of practical use and should be carefully considered by all organizations handling gasoline. Especially during the winter season there is every reason for a large percentage of natural gasoline or its equivalent in low boiling point fractions in motor fuel for use in, say, North Dakota, as against a fuel going to Georgia.

For Winter Use

The motor car user is supplied generally with a fairly satisfactory fuel for summer operation, but is expected to use practically the same fuel under winter conditions. The industry is tending to supply the most volatile fuel that can be handled satisfactorily in station pumps during the summer months, and is supplying a fuel of low volatility with an excessively safe margin for handling in the winter.

The above suggestions are not concerned with improving performance by increasing volatility, but are simply a guide indicating how a gasoline of fairly constant performance, or volatility under different atmospheric conditions, can be obtained by the simple economical expedient of adding more natural gasoline as the atmospheric temperature drops.

The engine performance data presented above indicates that under summer conditions (atmospheric temperature of 80 degrees Fahrenheit), about 10 to 20 per cent of natural gasoline should be blended with ordinary U. S. Motor gasoline for the best engine performance. Some V-type engines may give equally good service on straight U. S. Motor gasoline in warm weather. This type was not included in the above tests.

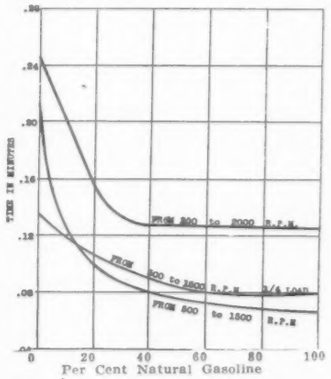

Figure 11—Minutes required for acceleration under winter conditions. Motor 3.

Preliminary work at low temperatures clearly indicates that U. S. Motor specification fuel used under atmospheric conditions corresponding to temperatures below the freezing point of water, should be so blended as to contain about 50 per cent of natural gasoline.

OIL BOOM HOTEL BURNED

EL DORADO, Ark., Nov. 13.—The States hotel, a relic of the boom days in El Dorado in 1921, has been destroyed by fire. The States was a three-story composition board and stucco structure and extended almost the full length of the block. The building was reduced to a heap of glowing embers in 45 minutes.

KANSAS FIELDS

(Continued from Page 52)

sand at 2,303-48 feet, and made 150 bbls. after a shot of 160 quarts. No. 8, SE cor. SW NE, Section 15-23-9, made 200 bbls. after a shot of 160 quarts in sand 2,299-2,343 feet. Rhodes & Able's No. 7, SW cor. NE SE, Section 18-22-10, is estimated at 50 bbls. after a shot of 60 quarts in sand 2,382-95 feet. Empire Gas & Fuel Co.'s No. 2, NE cor. NE, Section 22-22-11, swabbed 145 bbls. after a shot of 60 quarts in sand 1,888-1,908 feet. Manhattan Oil Co., and the Phillips Petroleum Co.'s No. 2, SW cor. SE NW, Section 16-23-11, is estimated at 75 bbls. after a shot of 200 quarts in sand 1,907-61 feet. The Amerada Petroleum Corp. and Simmons' No. 4, NE cor. NW SW, Section 26-23-11, is estimated at 300 bbls. after a shot of 200 quarts in sand 1,895-1,943 feet. Callahan and others' No. 1, SW cor. SE SW, Section 28-22-13, made 35 bbls. after a shot of 40 quarts in sand 1,871-1,886 feet. Ward McGinnis and others' No. 2, SW cor. NE NE, Section 36-24-10, had sand 1,873-97 feet, and made 250 bbls. after a shot of 100 quarts. No. 3 Mock, NW cor. NE NE, Section 36-24-10, made 150 bbls. after a shot of 100 quarts in sand 1,873-99 feet. Ed Parkins and others' No. 1, SW cor. NW, Section 14-25-11, is dry and abandoned at 1,917 feet. Connell and others' No. 1, SW cor. NW NE, Section 17-25-12, is dry and abandoned at 1,842 feet. Valley Osage Oil Co.'s No. 1 Joy, SE cor. SW NE, Section 33-25-13, is dry and abandoned at 1,540 feet. Hibbard and others' No. 1, NE cor. SW, Section 2-28-8, is making 15 bbls. in the top of the sand 2,562-67 feet.

Greenwood County New Work

Hazlett and others' have a rig on the ground for No. 1 Browning, NE cor. NW, Section 22-22-10. Roth & Faurot and the Phillips Petroleum Co. are drilling at 425 feet in No. 1 Laird, SW cor. NW, Section 10,23-10. Throxell and others' have spudded No. 1, SE cor. NW, Section 35-23-10. Syndicate Oil Co.'s No. 7, NE cor. SE NE, Section 28-22-11, is drilling at 450 feet. No. 8 Clark, SE cor. NE NE, Section 28-22-11, is drilling at 350 feet. Phillips Petroleum Co. and others' No. 1, SW cor. NE, Section 29-22-11, is drilling at 1,190 feet. York State Oil Co. has spudded No. 1, SE cor. NE, Section 31-22-11. Simmons and others' have the rig up for No. 4 Swanson, SE cor. NW NE, Section 9-22-12. The Texas Company is drilling at 460 feet in No. 1, NE cor. SE NE, Section 9-22-12. No. 2, NW cor. SE NE, Section 9-22-12. Darby Petroleum Co., and Simmons have spudded No. 1, SW cor. NW NW, Section 10-22-12. Ballierre and others' are drilling at 450 feet in No. 1, SE cor. NW, Section 15-22-12. Phillips Petroleum Co. is drilling at 560 feet in No. 4, SW cor. NE, Section 7-23-11. The Texas Company & Simmons have a rig on the ground for No. 2-A Edwards, NW cor. SE SW, Section 16-23-11. No. 2-B Edwards, NW cor. SW, Section 16-23-11, is spudded. No. 3, NW cor. SE NE, Section 17-23-11, is drilling at 500 feet. The location is made for No. 4 McGilvray, NE cor. SW NE, Section 17-23-11. Empire Gas & Fuel Co. has made a location for No. 1 Edwards, NE cor. NW, Section 21-23-11. Kismet Oil Co. is drilling at 320 feet in No. 1, SE cor. SW NW, Section 14-23-12. Mid-Continent Petroleum Corporation's No. 1, NE cor. NW, Section 32-22-13, is drilling at 380 feet. Skelly Oil Co. is drilling at 500 feet in No. 1, NW cor. NE, Section 32-22-13. Gore and the Skelly Oil Co. have spudded No. 2 Imthurn, CEL NE SW, Section 4-23-13. Harwood & Winters have made a location for No. 1 Jackson, SE cor. NW, Section 25-25-8. Skelly Oil Co. has made a location for No. 2 Nixon, SE cor. SW SE, Section 25-24-10. Bement Oil Co.'s No. 1 Keller, SW cor. NE, Section 31-25-10, is a location. National Refining Co. has built the rig for No. 1 Knock, SE cor. SW, Section 5-24-11. McGinnis and others' have spudded No. 7, NW cor. SE SW, Section 30-24-11. Leo Morgan and others' have made a location for No. 1 Gregg, SW cor. NE, Section 26-25-11.

Butler County

Empire Gas & Fuel Co. is fishing for tools in No. 80, SW cor. NE SW, Section 33-25-5, at a depth of 2,280 feet. Lebow & Travis are drilling at 400 feet in No. 5 Sluss, SE cor. NE SE, Section 26-26-5. Tom Johnson has spudded No. 1, SE cor. SW NE, Section 8-27-6. Mid-Kansas Oil & Gas Co. has spudded No. 5, NE cor. NW NW, Section 23-27-7. Ferndish and others' have made a location for No. 1 Staley, N Wcor. NW, Section 17-28-3. Stafford & Son have spudded No. 9, CEL NE SE, Section 26-27-4. Empire Gas & Fuel Co. has spudded No. 6, NW cor. NE NE, Section 2-28-4. Roy Ramsey is drilling at 1,115 feet in No. 3, SE cor. NE, Section 5-29-5. Branson and others are drilling at 360 feet in No. 1, SW cor. NE SW, Section 9-29-5. Magnolia Petroleum Co. has the rig up for No. 1 Blakemore, NE cor. SE SE, Section 4-28-6. White Eagle Oil Co. is rigging up No. 2 Blakemore, SE cor. NE NE, Section 4-28-6.

Marion County

Chris Sheedy is shut down at 1,200 feet in No. 1 Allison, SW cor. NW SE, Section 13-21-4. Watchorn Oil & Gas Co.'s No. 1 Ermstead, SW cor. SE NE, Section 22-22-4 is drilling at 1,690 feet. The location has been abandoned for No. 1-A, SE cor. SW NW, Section 23-22-4.

Chase County

Sinclair Oil & Gas Co. is drilling at 1,350 feet in No. 1, SE cor. SE, Section 25-21-9.

Woodson County

Derby Oil Co. is drilling at 500 feet in No. 2 Schankie, SW cor. SE NW, Section 8-22-14.

Graham County

Gulf Coast Oil Co.'s No. 1, C SE, Section 27-8-25w, is dry and abandoned at 3,045 feet, when the hole was lost.

Russell County

Keys & Day have made a location for No. 1, NW cor. NE, Section 8-14-15w.

McPherson County

E. B. Merriman has a location for No. 2 Anderson, SE cor. SW SW, Section 29-18-2w. Krown and others' have abandoned the location for No. 1, SE cor. NW NW, Section 21-20-2w. H. F. Wilcox Oil & Gas Co. is drilling at 1,000 feet in No. 1, SE cor. NW, Section 8-19-4. Probst & Franks are drilling at 800 feet in No. 1, NE cor. SE NW, Section 20-19-4.

Sumner County

Mid-Continent Petroleum Corporation is drilling at 165 feet in No. 1-A, NW cor. NW, Section 36-20-2w.

Harper County

McKnabb and others' have a dry hole at 4,252 feet in No. 1, NE cor. SW, Section 4-30-6w.

FORECLOSURE SUIT AGAINST CRUSADER CO.

SHREVEPORT, La., Nov. 13.—Suit was filed in Federal District Court here by the Continental Supply Co. against the Crusader Pipe Line Co., asking for the foreclosure of mortgages amounting to $4,200,000 on the Crusader company's property. The Crusader company recently completed a 150-mile 10-inch pipeline from Smackover to its river terminal at Vidalia, La. The pipeline company is not running oil at present. The defendant was ordered by Judge Ben C. Dawkins to appear in federal court November 15, and show cause why a receiver should not be appointed and to answer to the allegations of the petition.

The property involved includes all the assets of the Crusader Pipe Line Co. of Arkansas, consisting principally of a pipeline extending from the Smackover oil field in Arkansas to Ferriday, Concordia Parish, Louisiana, a distance of 147 miles, all of the receiving and unloading stations, buildings, and contracts for the transportation of crude oil and petroleum through the pipeline of the mortgagor. The pipeline extends in a southeasterly direction through Union County, Arkansas, and Union, Ouachita, Richland, Franklin, Catahoula and Concordia Parishes of Louisiana. The complainant also claims mortgage on all the issued and outstanding shares of capital stock of the defendant corporation, which covers 650 shares of no par value stock.

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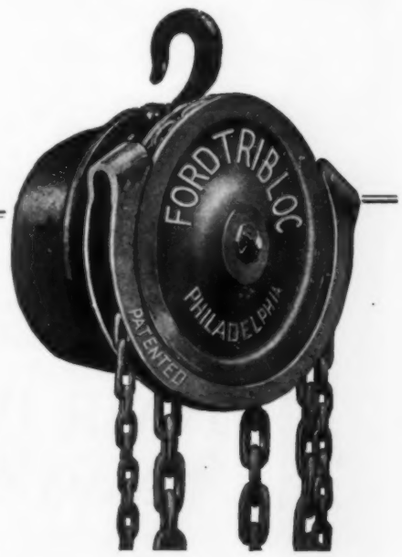

Tribloc Chain Hoists afford consistent, satisfactory service under the most gruelling tests because the "backbone" — that small part hidden inside the gear case—possesses a 3½ to 1 factor of safety. No amount of frills will make a hoist serviceable unless this part has strength in the right place. Unstinted effort is expended to maintain this and other Tribloc parts to high standards.

We would like to tell you how and why this effort can be capitalized in your own work.

Ask us to send you Catalog 7-B

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We also manufacture "THE MOTORBLOC"—
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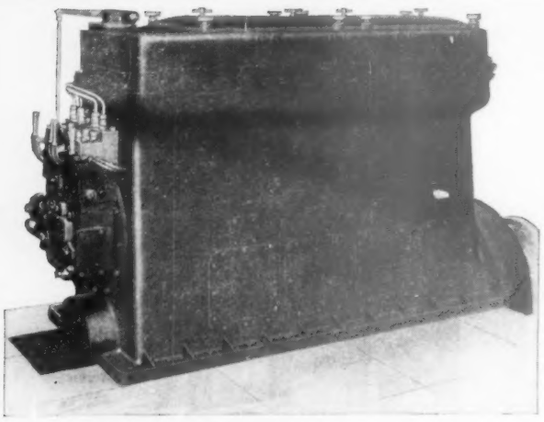

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Built in 2 to 8 cylinders 50 to 475 H. P. and speeds up to 900 R. P. M. Completely automatic and burns cheap commercial crude oils with high efficiency.

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MODEL GASOLINE TAX DESIRABLE; IMPORTANT THINGS TO CONSIDER

By Edward Martin*
Auditor General of Pennsylvania

A model law directing any governmental activity is most difficult to frame. The boundaries of our nation are so extended, our industries so diversified and our constitutional limitations so varied that a uniform law applying to all of the states is almost impossible.

We have been collecting tax on gasoline or liquid fuel since 1919. The first law was by Oregon in that year. Since that time other states have entered the field until now only four are outside the fold, namely, New York, New Jersey, Massachusetts and Illinois. It is a generally accepted view that a gasoline tax is a logical and fair addition to the license fee of an automobile. The additional burden is distributed in proportion to the amount we use our cars. In addition, it exacts a just share from the numerous visiting motorists, who otherwise would not contribute anything for the expensive facilities which they enjoy. The field seems to be permanent and the form of the law to be used is deserving of the best study of tax experts.

In a general way, three principles should be followed in forming any tax measures: First, the money derived should go as far as possible to the benefit of the taxpayer. This makes it as popular as it is possible to make any tax measures. Second, it should be difficult to evade the tax. Public opinion helps along this line more than any other single thing. If the public knows it is for a use in which it is greatly interested, it will demand that each individual or corporation pay his or its proper share. Third, it should be economical to collect. There is much opposition to many tax measures because the costs to collect the tax are too high. It has been found that gasoline or liquid fuel tax goes for road building and it is an economical tax to administer. It should be collected for less than 1 per cent.

In the framing of the law the objects to be attained should be as follows:

1. The collection of the largest amount of tax.
2. The closest collection of the tax.
3. The most economical collection of the tax.

Basis of the Law

In the framing of the law the following are the important things to consider:

1. The thing taxable. In other words, a clear definition of the article to be taxed. It must be broad enough to meet the requirements of the state.
2. The definition of the "dealer" or other agency through whom the tax is collected.
3. The tax rate.
4. The distribution of the tax. The use of the tax depends upon state requirements.

In keeping with these suggestions and the objects to be accomplished, it would seem that the following definition of "liquid fuels" would be broad enough to assess all liquids used or usable for internal combustion engines, irrespective of their actual use and we suggest it for your consideration:

"The term 'liquid fuels' shall mean all liquids produced, prepared or compounded for use in or usable in internal combustion engines for the generation of power, and shall include all distillates of and condensates from, petroleum, natural gas, coal, coal tar, and vegetable ferments—said distillates and condensates being ordinarily designated as gasoline, naphtha, benzol, benzine and alcohols so usable, but not restricted to such designations."

The next question to consider is how the states shall collect the taxes. There are two distinct methods of collecting the same at present. One is through the wholesaler which includes the manufacturer, importer or producer. The other is the retailer who makes the final sale to the consumer. Out of the states now collecting gasoline tax all but five collect by the first method. Pennsylvania has used the latter plan, and while it has cost us less than three-fourths of 1 per cent to collect, we are of the opinion the best interest of the state can be served by collecting taxes through the wholesaler, who can be defined as a "dealer" in the following language:

"The term 'dealer' shall include any person, firm, co-partnership, association or corporation who imports or causes to be imported liquid fuels as herein defined, for use, distribution or sale and delivery in, and after the same reaches the state; and also any person, firm, co-partnership, association or corporation who produces, refines, manufactures or compounds such liquid fuels in the state for use, distribution, sale or delivery therein."

The word "distributor" could be used instead of "dealer". The definition of the term "liquid fuels" may also be limited to suit the requirements of the state.

Administration of the Law

Now let us consider some of the things necessary in the administration of the law.

1. Collection of the Tax.—In as much as it is a state tax it seems more appropriate that the tax should be collected directly by a fiscal officer of the state rather than through some local officer of a county or city, or other local subdivision.
2. License.—All dealers should be licensed and said license to be issued by the fiscal officer of the state through whom the tax is collected.
3. Reports.—Periodical reports should be required to be substituted by all dealers to the proper fiscal officer of the state, together with the return of all taxes on the report submitted.
4. Penalty.—A penalty provided for imposition upon these dealers who fail to comply with the law in the matter of taking out a license or who fail to report and remit when due.
5. Revoking Licenses.—Power in the proper fiscal officer to revoke the license of any dealer who fails to comply with requirements.
6. Tax Lien.—Priority of tax liability in case of judicial sales, receiverships, dissolutions or transfers.
7. Notice of Change of Ownership or Management.—Provisions requiring notice to state fiscal officers of changes in a partnership or in the officers of a corporation, which is acting as a "dealer."
8. License Not Transferable.—The license to apply to the direct location for which issued and be non-transferable, either to other dealers or to a different location.
9. Notice in Case of Sale.—Provision making any transfer of a dealer's business unlawful, unless and until the tax due from the seller is first paid to the state and then only upon 10 days' prior notice of such proposed sale to the proper state fiscal officer, by purchaser, otherwise the purchaser assumes such liability.
10. Power to Audit.—Power of the fiscal officers to audit the tax accounts and records of dealers to determine the correctness of any reports or returns.

Rate of Tax

The rate depends on the amount of revenue required. The rate now runs from 1 to 5 cents per gallon. The average is now .02139 cents per gallon. It would probably make the law more popular if there could be a uniform rate, but whatever the rate is it should be sufficient with motor license fees to maintain the highways. An investigation shows that there seems to be no complaint in states where 4 and 5 cents per gallon is charged.

Distribution

An examination of the various gasoline and liquid fuels tax acts of the several states discloses that about two-thirds of the taxes collected is appropriated, either directly or indirectly, to the building and improvement of the highways. This is proper. There are a few states

*Before National Conference of Gasoline Tax Administrators and State Oil Inspectors, St. Louis, Mo.

which only spend a portion of these taxes on the improvement of the highways and distributes the other portions to various functions of the state government. This violates one principle of tax law making, but this is a question which each state should meet. We believe that all the tax should be used for road building purposes.

Limitation of Tax or Refund

Some states only tax the gasoline or liquid fuels used for operating or propelling motor vehicles on the public roads, and this creates the necessity of making refunds for the return of the tax collected on that portion of the gasoline or liquid fuels not used in such motor vehicles.

Other states tax all liquid fuels sold for any purpose whatsoever and this has simplified the administration of the law, as it avoids the necessity of any refunds. We should have as few exceptions as possible in the law. Every exception makes it more difficult to operate and more open to criticism.

DEATH OF W. F. ARNOLD

W. F. Arnold, who died recently in Stamford, Tex., and whose body was cremated in San Antonio, according to his wishes, was an oil man well known in American and South American oil fields. He was born in Alcase, Switzerland, July 27, 1875. His father was an international oil man, having drilled in a number of foreign fields. The family came to the United States when W. F. Arnold was a lad of 12 years, and lived in western Pennsylvania. After his father's death W. F. Arnold moved to California, operating there for 20 years. He went to Texas in 1919 and for three years was connected with the Texas Railroad Commission. He operated in South America for a time, but returned to Texas, and since July of this year had been operating around Stamford, Jones County. Mr. Arnold's death was sudden. He attended a barbecue on the Colbert ranch. He felt ill when he retired for the night and shortly afterward passed away. His widow and 5-year-old son survive him.

Tennessee Suggests Its Privilege Tax Best on Gasoline

By W. S. Booton*
Director, Excise Tax Division, Tennessee

A gasoline tax is an abstruse psychological phenomenon. It is a popular tax. It was never considered a real sporting proposition, in the generation preceding ours, to ride a free horse to death. A gasoline tax is a free horse.

Down our way, the gasoline tax is meeting in a truly marvelous manner the cost of roads built on a pay-as-you-go plan. The Tennessee type of gasoline tax law is simple and will reflect more than $14 per registered motor vehicle this year, if our cotton people don't have to stop riding altogether. Tennessee imposes a privilege tax upon distributors and—or dealers measured by gallonage distributed and—or sold. This type of law is less complicated than a sales tax.

We don't tax the gasoline. Ours is a mere privilege tax upon the occupation, measured by gasoline, distributed and—or sold for all purposes whatsoever. The extraordinary inherent simplicity of our law should appeal to students.

It is up to us to retain the co-operation of gasoline producers and distributors until the great desideratum has been attained. The oil people are doing their full share, and, without direct compensation. We cannot blame the oil folks for being gun-shy. It used to be open season every month in the year for politicians to bombard the oil octopus. But, if civilization, as expressed in politics, keeps its present level, or rises higher, it is improbable that either gasoline tax rates or regulations will disrupt our present comparatively peaceful and happy situation enabling us to state the gasoline tax is an honestly popular tax and capable of identification as such.

*Before National Conference of Gasoline Tax Administrators and State Oil Inspectors, St. Louis, Mo.

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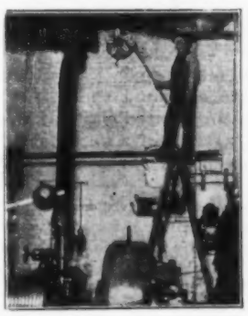

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RECEIPTS OF CALIFORNIA OILS; OCTOBER IMPORTS OF PETROLEUM

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the month of October totaled 2,667,000 bbls., a daily average of 86,032 bbls., compared with 3,165,000 bbls., a daily average of 105,500 bbls. for the month of September.

Receipts at Atlantic and Gulf Coast ports for the week ended November 6 totaled 772,000 bbls., a daily average of 110,285 bbls., against 560,000 bbls., a daily average of 80,000 bbls. for the week ended October 30.

	Total		Week Ended	
At Atlantic Coast Ports—	October	September	November 6	October 30
Baltimore	426,000	315,000	.....	170,000
Boston	318,000	216,000	73,000	.....
New York	1,147,000	1,633,000	160,000	143,000
Philadelphia	184,000	662,000	293,000	80,000
Others	569,000	339,000	246,000	*167,000
Total	2,644,000	3,165,000	772,000	560,000
Daily average	85,000	105,500	110,285	80,000
At Gulf Coast Ports—				
Tampa	23,000	.....	.....	.....
Daily average	742	.....	.....	.....
Total Atlantic and Gulf Coast ports	2,667,000	3,165,000	772,000	560,000
Daily average	86,032	105,500	110,285	80,000
Distribution of total California oil receipts is as follows:				
Crude	880,000	723,000	304,000	90,000
Gasoline	†725,000	690,000	.....	175,000
Gas oil	430,000	437,000	.....	225,000
Fuel oil	376,000	1,257,000	468,000	70,000
Lubricating	57,000	58,000	.....	.....
Total	2,667,000	3,165,000	772,000	560,000

*Revised.
†Includes 80,000 bbls. gasoline tops.

According to figures collected by the American Petroleum Institute, imports of crude and refined oils at the principal ports for the month of October totaled 5,277,000 bbls., a daily average of 170,226 bbls., compared with 5,384,000 bbls., a daily average of 179,467 bbls. for the month of September.

Imports at the principal United States ports for the week ended November 6 totaled 1,211,000 bbls., a daily average of 173,000 bbls., compared with 1,376,000 bbls., a daily average of 196,571 bbls. for the week ended October 30.

	Total		Week Ended	
At Atlantic Coast Ports—	October	September	November 6	October 30
Baltimore	624,000	498,000	.....	354,000
Boston	215,000	200,000	.....	.....
New York	2,091,000	2,497,000	526,000	448,000
Philadelphia	171,000	41,000	.....	47,000
Others	650,000	621,000	206,000	142,000
Total	3,761,000	3,857,000	732,000	991,000
Daily average	121,323	128,567	104,572	141,571
At Gulf Coast Ports—				
Galveston district	314,000	285,000	101,000	151,000
New Orleans and Baton Rouge	915,000	1,077,000	378,000	167,000
Port Arthur and Sabine district	119,000	75,000	.....	25,000
Tampa	168,000	90,000	.....	42,000
Total	1,516,000	1,527,000	479,000	385,000
Daily average	48,903	50,900	68,428	55,000
At All United States Ports—				
Total	5,277,000	5,384,000	1,211,000	1,376,000
Daily average	170,226	179,467	173,000	196,571

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EUROPE'S INCREASING DEMAND FOR AMERICAN OIL PRODUCTS

By John P. Herrick*

Russia, Rumania and Poland are the important factors in crude oil production in Europe. There is commercial production in France, Czecho-Slovakia and Italy. England has one producing oil well and Spain's oil production is so small that it is not listed. Total European production this year will exceed 80,000,000 bbls. Russia and Rumania will show big increases this year. Italy produces 45,000 bbls. of light oil a year and the Government is making determined efforts to induce development of Italy's potential oil resources. The Italian Government is half owner of a refinery at Trieste and aiming to secure a foothold in the Rumanian fields. German chemists are producing oil in commercial quantities from coal and hoping to develop synthetic gasoline. In England an effort is being made to develop powdered coal as a substitute for fuel oil.

Consumption of petroleum products is steadily increasing in Europe and some alarm is felt over the recent report that the oil supply of the United States would last only six years. This was a question often asked me in France, for over 70 per cent of all her petroleum supplies come from the United States. This year France will buy more than 1,000,000 tons of gasoline. The same question was asked in Great Britain. That country depends on the United States for about 50 per cent of her oil requirements. Every British naval vessel and nearly all English liners are oil burners. Aerial craft and commercial flying steadily call for increased supplies of gasoline and lubricants. Europe has reason to be concerned over future supplies of petroleum.

Profitable Oil Mining in France

An experiment of world-wide interest in mining oil is under way in Alsace, 20 miles north of Strassburg and 5 miles from the Rhine. Oil has been produced in this district for 158 years. The first concession was granted by Louis XVI and development has been carried on ever since. Oil was first produced by mining the shallow sands. Later shallow wells were dug, then drilled. In all more than 2,500 wells have been drilled. In 1870, this territory passed to Germany and was returned to France in 1921. In 1917, German engineers sunk shafts and excavated galleries through the oil sands where the wells had ceased to produce. Through main and cross galleries into which the oil seeps, it is drained into reservoirs and pumped to the surface. The mines are equipped with modern ventilation and safety rooms where the miners go for fresh air and food, in case of explosion. The results have been most satisfactory. Engineers estimate that the drilled wells take out only 15 per cent of the oil and mining recovers 75 per cent of the content of the oil sand. Several explosions caused damage before the plan was perfected. The oil is of low gravity, only 6 per cent gasoline, rich in kerosene and lubricants. From the 600 producing wells still in operation and the oil mines, the company operating the concession produces 500,000 bbls. of crude a year. This oil is refined at Pechelbronn and the operating company pays gross dividends of over 40 per cent a year. The time may come when oil will be mined with great profit in the shallow fields of the United States.

Comeback of Rumanian Fields

Although Rumania's oil fields and refineries were destroyed by the allies during the war to prevent their falling into the hands of the Germans, they are now producing 70,000 bbls. of oil a day, comparable in quality to Mid-Continent crude. Activity has centered around a few spots with intensive drilling. In the Moreni district where the life of a well is three years, recovery is as high as 275,000 bbls. per acre. Several pay sands are found, the deepest at 4,500 feet. From 6 to 9 months is required to complete the deep wells and they cost $60,000. Rotary outfits are used and wells finished with cable tools. Sand is so soft that no wells are shot. When wells cease to flow they are bailed. Some wells are started with 27-inch pipe and finished with 14-inch to give a big hole for bailing. Regulation size is 18-inch to start and finish with 6¼-inch to top of cap rock. In 1922, all subsoil rights were declared to be the property of the Government. Pipelines are Government owned. Not more than 10 per cent of the production is owned by American companies. Royal Dutch-Shell and English companies are strongly entrenched. The oil is refined near the wells and at ports on the Black Sea. Rumania has produced oil for two centuries. For many years oil was used only for axle grease. In times long past wells were dug by hand to a depth of 800 feet. Rumania has large proven oil reserves and extensive areas that are classed as probable and possible by geologists.

Motor Fuel From Wood

Only two grades of gasoline are sold in France, 64 gravity for touring and 58 gravity for commercial vehicles. It is sold through pumps and 5-litre tins. In Paris the retail price is 35 cents a gallon. Deduct 7½ cents for French taxes and cost of ocean freight and the price is about the same as in Olean. In Paris there is a special city tax of a franc a gallon. There are long rows of curb pumps outside the city gates that do a thriving business. Throughout France the price varies from 32 to 39 cents a gallon for 64 gravity, 4 cents less for 58 gravity. The principal wholesalers of gasoline in France are Standard Oil Co. of New Jersey, Royal Dutch-Shell and Anglo-Persian Oil companies. Other American and foreign companies have French subsidiaries. There are 30,000 retail distributors in France and competition is keen. Vacuum Mobiloil is the best known lubricant in France. One sees the red Gargoyle signs everywhere. It is sold in 2-litre cans that have a return value of 7 cents.

A new substitute for gasoline is being developed in France. It is called gazogine. Wood is transformed by a simple process into a combustible gas guaranteed not to injure motors and to provide the same force as petroleum product. It is already in use in motors. According to the Paris Herald, the Berliet company recently sent a 14-passenger auto on a tour of France during which 5,000 kilometers were covered with an expenditure of only 500 francs worth of wood, instead of 4,000 francs worth of gasoline which would ordinarily have been required. In France gasoline is called essence, in England petrol, in Switzerland benzine and in Spain gasolina.

40 Miles on Gallon of Gasoline

More than 2,700,000 motor cars were in service in Europe on January 1, 1926. Of this number 903,000 were credited to Great Britain, 735,000 to France, 323,000 to Germany, 114,000 to Italy. Counting motor cars, trucks, buses and motorcycles Great Britain has more than 1,250,000 gasoline vehicles. France has a 60 per cent duty on foreign motor cars. In spite of this there are 100,000 Ford cars and trucks and 9,000 Ford tractors in France. One popular 6-horsepower French car is said to run 40 miles on a gallon of gasoline. There are more than 100,000 motor cars in Paris and taxi rates are very low. In France no person can drive a motor car without first passing an examination. In Paris traffic moves by signals on the boulevards, and every motor car has two horns, one rubber hand horn for city driving and the regulation horn for country highways. Almost every make of American car is seen on the highways of Europe.

British Government in Oil Business

England and Scotland, like France, have good roads and motoring is popular. About 20 per cent of cars in use in England are made in America. There is a big market for fuel oil for shipping in England. The liner I returned home on, the Mauretania, burns 28,000 bbls. of oil on a round trp. When oil burners were installed the chief engineer reduced his force from 400 to 160 men. The Anglo-Persian Oil Co., partly Government owned, the Dutch-Shell and Anglo-American are the big three in Great Britain. Anglo-Persian has preference in all Government petroleum requirements. Anglo-American distributes American petroleum products and with its 9,000 employes, fleet of 100 vessels of all types, 1,600 tank cars and 2,500 motor trucks and motor cars, completely covers the country. This company now has 1,000 employes making oil stoves, which have become very popular since the great coal strike began.

There are no curb pumps in London proper. Gasoline distribution in Great Britain is evenly divided between two imperial gallon cans and curb pumps. Wholesalers fix the price and distributors are allowed 2½ pence or 5 cents a gallon. There is agitation for a gasoline tax and it is certain to come.

Our Oil Diplomats Abroad

I found the highest types of business men representing the great American oil companies in Europe, men who knew the oil game from production to distribution, keen, alert, diplomatic. It is a highly competitive field, business is transacted in many languages, laws and customs differ and it is easy to develop misunderstandings. I wonder sometimes if we producers fully appreciate these trail blazers who make a market for American oil in the foreign fields. One American oil company has a training school for foreign representatives who are recruited from graduates of the big colleges. This is the last instruction they receive before sailing: "You are going to a foreign land to represent the greatest country in the world and one of the world's finest business organizations. So conduct yourself that the people you come in contact with will always say: 'The United States must be a wonderful country, the Blank Oil Co. must be a great company for it sends out to us such a fine type of business man.'"

Forest M. Towl Made Good

To save the oil tankers a long and dangerous trip around the north of Scotland during the war, a Government pipeline was laid across the narrowest part of Scotland from the Clyde to the Forth to fuel the British fleet. It is an 8-inch line, 37 miles long, with three pumping stations. It was built under the direction of Forest M. Towl, foremost pipeline expert in the world, the man who built nearly all the great pipelines in the United States. He told the Biritsh and French commissioners that the work could be completed in 120 days after the material was assembled. They were incredulous. "It will require much longer than that to prepare the plans," they said. "All right," said Towl, "I'll have the line completed within the limit set and you can take your time with the plans." And his American pipeline crews made his word good.

*Before New York State Oil Producers Association at Olean, N. Y.

OKLAHOMA FIELDS

(Continued from Page 52)

No. 4 Flint, NE cor. NW NW, Section 26-14-14. J. G. Haas is rigging up a machine for No. 4 Colbert, CEL NW NW, Section 15-14-14. E. L. Kistler is drilling at 800 feet in No. 3 Grayson, NW cor. SW, Section 29-15-15. Culp and others are drilling at 400 feet in No. 6 Vanderslice, NE cor. SE, Section 30-15-15. W. C. Newman has a rig on the ground for No. 1 Scott, NE cor. NW NE, Section 8-13-11. Diamond Oil Co. has spudded No. 2 Jones, CEL NW NW, Section 27-13-11. Josey Oil Co. has built the rig for No. 5 Hulsey, NE cor. SE NE, Section 32-12-11. Cumberland Petroleum Co. has a rig on the ground for No. 4 Dunn, SW cor. NE NW, Section 21-13-14.

Lincoln County

Shaffer Oil & Refining Co. is fishing for tools at 4,022 feet in No. 1, SE cor. SW, Section 31-17-5. The Texas Company's No. 1, SW cor. NW, Section 22-14-5, made 50 bbls. of oil after a shot of 40 quarts in sand at 3,929-4,048 feet. Phillips Petroleum Co.'s No. 5, SW cor. NE, Section 10-14-5, had sand at 3,412-

25 feet, and made 110 bbls. after a shot of 30 quarts. Prairie Oil & Gas Co.'s No. 1, SE cor. SW NW, Section 35-14-6, swabbed 90 bbls. from sand at 4,024-44 feet.

Creek County

Haskell and others' No. 7, NE cor. SW NW, Section 12-14-8, is running casing at 2,457 feet. Gray Oil Co. is drilling at 1,300 feet in No. 1, NE cor. SW NE, Section 3-14-10. Atlantic Oil Producing Co.'s No. 3, SW cor. NE NW, Section 16-14-10, made 120 bbls. from sand at 3,224-35 feet. Edgewood Oil Co.'s No. 1-A, SW cor. NW SE, Section 20-14-10, is drilling at 345 feet. Independent Oil & Gas Co. is drilling at 500 feet in No. 2, NE cor. SW NW, Section 29-14-10. Mid-Continent Petroleum Corp. has spudded No. 1, SW cor. NE, Section 32-14-10. Roxana Petroleum Corp. is drilling at 420 feet in No. 4, NE cor. SE NE, Section 10-17-9. Independent Oil & Gas Co.'s No. 2, NE cor. NW, Section 8-17-10, sand at 3,062-68 feet and 3,068-81 feet, shot with 10 quarts, made 35 bbls. of oil. It has not been completed. Turman Oil Co. has a hole full of oil at 3,014-28 feet in No. 1, NE cor. NW NW, Section 8-17-10. This well made 60 bbls. of oil in sand at 3,005-14 feet. J. H. Wright's No. 11, NE cor. SE SW, Section 24-17-10, top of sand at 1,850-1,910 feet, shot with 150 quarts, made 35 bbls. oil. It has not been completed. J. H. Wright's No. 11, CEL NE NW, Section 24-17-10, top of sand at 1,850-57 feet, shot with 130 quarts, made 24 bbls. of oil. It has not been completed. C. C. Tibbens has a rig and tools for No. 1, SE cor. SW SE, Section 23-14-8. Burlingame & Sharp's No. 11, SE cor. SW NW, Section 13-19-8, had sand at 2,870-90 feet, and made 20 bbls. after a shot of 20 quarts. Devonian Oil Co. has abandoned the location for No. 6, NE cor. NE, Section 14-19-8. Magnolia Petroleum Co. has abandoned the location for No. 6, CSL SW SE, Section 32-18-7. No. 2, C NE SE, Section 35-18-7, is making 6,000,000 feet of gas from sand at 3,025-40 feet. The Texas Company's No. 5, SW cor. NW SE, Section 3-17-9, had sand at 2,065-2,103 feet, and made 50 bbls. after a shot of 50 quarts. Wood & Farren's No. 4, NW cor. SE, Section 21-17-9, is dry and abandoned at 3,053 feet.

Burlingame & Sharp are drilling at 500 feet in No. 12, NE cor. SW NW, Section 13-19-8. Gled Oil Co. has a machine in for No. 7 Ross, SW cor. NE SW, Section 13-19-8. The Texas Company is drilling at 650 feet in No. 5, SW cor. SE, Section 13-19-8. Holmes and others have a rig on the ground for No. 1-A Perryman, NE cor. SW, Section 22-19-10. G. M. Oil Co.'s No. 1, SE cor. NE, Section 6-18-10, is drilling at 500 feet. A location has been made for No. 1 King, NE cor. NW SW, Section 7-18-10. Bu-Vi-Bar Petroleum Co. has a rig on the ground for No. 1 Grayson, SW cor. NW NE, Section 16-17-9. H. C. Wilson has a rig up for No. 1 Tiger, SW cor. SW, Section 28-17-9.

Payne County

Magnolia Petroleum Co.'s No. 1, SE cor. SE SW, Section 31-18-4, is making 16 bbls. of oil and 8,000,000 feet of gas on sand at 3,639-59 feet. It has not been completed. Mulberry Oil Co.'s No. 4-A, NE cor. SE SW, Section 5-17-4, is drilling at 3,100 feet. Home Gas Co. has spudded No. 3, SE cor. NE NW, Section 6-17-4. Magnolia Petroleum Co. has a rig on the ground for No. 3 Walker, NE cor. SW, Section 8-19-5. No. 1, SE cor. SW NW, Section 9-19-5, is dry and abandoned at 3,650 feet.

Pawnee County

Marland Oil Co. is drilling at 450 feet in No. 2, SW cor. SE, Section 33-20-5. Magnolia Petroleum Co.'s No. 1, SW cor. NE, Section 32-20-6, had sand at 3,332-75 feet, and made 30 bbls. after a shot of 20 quarts. Sinclair Oil & Gas Co.'s No. 12, NW cor. NE, Section 10 20-8, had a total depth of 2,661 feet, and was plugged back to sand at 2,430-2,520 feet, and is good for 16 bbls.

Jefferson County

Humble Oil & Refining Co. is rigging up a machine for No. 2 Sullivan, NE cor. NE, Section 25-25-8.

Grant County

Marland Oil Co.'s No. 1, SW cor. NW, Section 36-28-3w, is drilling at 4,280 feet with a showing of oil.

CARBONACEOUS TEST OF BLACK OIL SHALES

By Charles E. Kern

Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Nov. 13.—Some of the geologists who are interested in the recognition of organic material in shales and in the determination of whether particular black shales owe their color wholly or in part to organic or carbonaceous material may be unfamiliar with and hence be glad to know of a method recently recommended for this purpose in a letter from the United States Geological Survey to a Texas correspondent. This method, which has been generally known to chemists, is as follows:

The use of osmic acid in the case discussed had the special object of bringing out by staining any fatty material of algae that might be present in the salt sample in question. This is its special application and it was used in the case in question in a final effort to see whether there were any indications of algal material in the specimen.

For the identification of carbonaceous material a very much easier and simpler test has been recommended by Miss Taissia Stadnichenko, who is carrying on investigations on the organic material of oil shales under the direction of the Nation Research Council in the laboratories of the Geological Survey. The procedure recommended by Miss Stadnochenko is as follows:

Place a small portion of the material to be tested, preferably pulverized, in a test tube, into the mouth of which has been inserted a stopper through which a bent tube passes. Submerge the end of this tube in a solution of calcium or barium hydroxide $Ca(OH)_2$ or $Ba(OH)_2$ in another test tube which needs not be stoppered. Heat the sample in the tube gently; escaping gas will bubble through the hydroxide solution and if there is any carbonaceous material in this sample a very obvious precipitate of calcium or barium carbonate will be formed. If a test with acid indicates, by causing effervescence, the presence of inorganic carbonates in the sample, it will of course be necessary, before testing for carbonaceous matter, to treat the sample with dilute hydrochloric acid (1-1) and wash.

To differentiate sulphides, heat the sample moistened with sulphuric acid in an open test tube over which a piece of lead acetate paper has been placed. If there are sulphides present, the paper will turn black. Prepared lead acetate papers may be purchased from dealers in chemical supplies.

For the differentiation of sulphur, which in a very finely divided state I believe also gives a black color to sediments, shake the pulverized sample with carbon bisulphide (CS_2); decant the carbon bisulphide and evaporate to dryness. The sulphur should be recognizable in the residue, or may be identified by heating it and bleaching a piece of moistened litmus paper in the fumes of sulphur dioxide which are formed.

BURMAH OUTPUT LESS

Petroleum products of Burmah in 1925 totaled about 263,000,000 imperial gallons (about 7,514,000 United States barrels), a decrease of 7,500,000 gallons from 1924. The decrease, the Burmah development commission says, is due partly to gradual exhaustion of wells, partly to the policy of restriction of output and non-development of areas held by one of the most important oil companies. Burmah Oil Co. denies it is responsible for restricted output or the non-development alleged, and states there is no jurisdiction for the statement so far as Burmah Oil Co. is concerned.

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SEND today for our attractive list of Texas leases, royalties, production and fee lands. American Lease & Royalty Co., 1313-G Santa Fe Bldg., Dallas, Tex.

TEN-YEAR oil leases. No. rentals. Crockett County, Texas. Send for true map. Paul Konz, Box 291, Fort Worth, Tex.

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FOR SEMINOLE County leases and royalties communicate with Brown Brothers & Co., Seminole, Okla. Box 41.

OIL and gas leases, Kay and Grant Counties, Okla.: Unions, San Juan, New Mexico. Wm. C. Urhoff, Blackwell, Okla.

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HAVE BUYERS for flush or settled production in Oklahoma and north Texas. Vern R. Hartman, P. O. Box 442, Dallas, Tex.

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Royalties in large or small units to suit any size buyer in fastest growing and most rapid developing oil field in Middle West. Write for list of offerings. B. O. Taylor, 306 Blackburn Bldg., Amarillo, Tex.

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Two miles 60-lb. first quality re-laying rails.
For immediate shipment from our Texas yards.
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The Standard Oil Co. (Kansas)
Phone 236 Neodesha, Kans.

EQUIPMENT WANTED

WANTED—To buy National drilling machine, calf wheel attachment preferred. No tools. Clyde Farris, Marysville, Kan.

WANTED No. 2 or No. 3 National Machine with tools. State particulars. Box B-578, The Oil and Gas Journal, Tulsa, Okla.

IF PRICE is right I will pay cash for a good Star, Rotary or string of cable drilling tools. Lloyd W. Johnson, 308 Laurel St., St. Louis, Mo.

WANT TO BUY one 30 Star rig. Bryant Johnson, Shamrock, Tex.

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Tulsa, Oklahoma

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RANCHES—FARM LANDS

OZARKS—Ten acres near White River and proposed Dixie Lake, $100, $5 monthly. Abner Zimmerman, 1800 N. Fifth St., Kansas City, Kans.

IN READING the other advertisements in this section you may find the bargain or opportunity that you are looking for.

FARM on the Rio Grande, 100 acres valley land, is irrigated either from irrigation district or private pump direct from river. Can't be beat for vegetables, citrus or staple crops. Shipping point 1½ miles. Priced right. Address Carl I. Boyer, Alamo, Tex.

IMPROVED Colo. ranches, $3 to $5 acre; bargains. A. Brown, Florence, Colo.

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Before disclosing your invention to anyone send for blank form.
Evidence of Conception,
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PATENT - SENSE — Valuable book (free) for inventors seeking largest deserved profits. References include prominent oil men. Write Lacey & Lacey, 718 F. St., Washington, D. C. Established 1869.

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35 CENTS a line first insertion; 25c a line each additional insertion. Cash in advance.

CLASSIFIED WANTS

CREATE AND BUILD BUSINESS

MAIL your advertisement now. It will be published next week. Cash with order.

POSITION WANTED

EXPERIENCED oil country machinist desires position. Capable of running small shop. Available immediately. Box B-583, The Oil and Gas Journal, Tulsa, Okla.

EXTEND your business in the oil industry by advertising in the Classified Wants Section of The Oil and Gas Journal.

REGISTERED nurse wants position with oil company in South America, Mexico or any foreign country. Can give best of references. Age 42, alone, good health, speak some Spanish. Box B-580, The Oil and Gas Journal, Tulsa, Okla.

WANTED—Position as manager in west Texas. Have complete knowledge of wells drilled and prospective acreage here. Let me help you to locate and organize your drilling successfully. Have had 17 years' continuous experience as a driller, in production, supervising operations and land department work. Can furnish highest references. Formerly in charge University royalty interests in west Texas. L. G. Graves, Best, Tex.

THOROUGHLY experienced geologist and valuation engineer, formerly with oil and gas section, Bureau Internal Revenue, now employed, wants connection with new oil company on moderate salary, expense and interest basis in Mid-Continent, Texas, Rocky Mountain or California fields. Box B-574, The Oil and Gas Journal, Tulsa, Okla.

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4 lines	1.40	2.40	3.40	4.40
5 lines	1.75	3.00	4.25	5.50
6 lines	2.10	3.60	5.10	6.60
7 lines	2.45	4.20	5.95	7.70
8 lines	2.80	4.80	6.80	8.80
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Compute white space at the above rates
Mail your advertisement to

THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

EXPERIENCED OIL Accountant, stenographer and office manager wants position with progressive company or individual. Middle age; married. Available now. C. L. Michael, 201 East Sixth St., Burkburnett, Tex. Phone 325.

POSITION WANTED — As assistant to executive of oil company by geologist of wide experience in U. S. and foreign countries, and an ex-official of U. S. Geological Survey; now operating independently. Box B-573, The Oil and Gas Journal, Tulsa, Okla.

POSITION wanted, oil tool machinist, joint turner, 20 years' experience. Box B-570, The Oil and Gas Journal, Tulsa, Okla.

How to Interest Oil Men in Your Property, Product or Service

Because it is the oldest and best petroleum publication in the world, The Oil and Gas Journal has a wide circulation going to all the Oil Fields, Refineries, Natural Gasoline Plants, Supply Stores, Pipeline Stations, and offices of oil men everywhere.

Oil men read the Classified Wants Section every week. Therefore, if you wish to buy or sell Leases, Royalties, Production, Equipment, Machinery or Service, advertise in The Classified Wants Section.

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THROUGH the Classified Wants Section you can begin with a small advertisement and give nation-wide publicity to the leases, production equipment, etc., that you want to buy or sell.

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WANTED—Live energetic broker to handle substantial stock issue of $100,000. Have production. Our properties practically adjoining 1,000-bbl. producers (initial) backed by wealthy oil producers. Address Box B-548, The Oil and Gas Journal, Tulsa, Okla.

ANSWERS to your advertisements in the Classified Wants Section will come from men and organizations in all parts of the world, who are interested in some phase of the oil industry from producer to consumer.

WILL develop favorable Texas block; submit details. W. S. Covert, 3525 East 11th Ave., Denver, Colo.

WANTED—Leases, royalties, production or lands in fee, anywhere in Texas. American Lease & Royalty Co., 1313-G Santa Fe Bldg., Dallas, Tex.

WANTED—Party to drill on 250 acres with option on 1,000 acres more near Los Angeles. Dr. Vanderlind, 1501 S. Figueroa, Los Angeles, Calif.

BUSINESS OPPORTUNITIES

TO OIL, Gas and Gasoline Companies and Operators considering the manufacture of carbon gas black from residue gas of absorption gasoline plants, I have a complete service to offer, complete detailed drawings, plans and specifications for plants of most modern type, complete plants ready for erection, fabrication of plants on ground, erection and operation of same and contracts for sale of finished product. All data, statistics and information on the carbon black industry gladly furnished at any time without cost. Have parties who will finance both gasoline and carbon black plants where gas is suitable. Box B-582, The Oil and Gas Journal, Tulsa, Okla.

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THE Powell-Mexia district, Texas, most famous oil field, is as yet scarcely half developed. We know this region thoroughly and invite capital for further exploration which we will operate for an interest therein. Nicolle & Wife, Petroleum Prospectors, Corsicana, Tex.

CLASSIFIED advertisements in this section do pay well in money and in extended business relations. This has been proven by the continual advertising that we receive from the men in the oil industry, everywhere.

FINANCING—Old established Denver brokerage house would consider undertaking to promote meritorious mining, oil or manufacturing business of merit, or preorganization issue of either; must be clean and attractive, submit data. National Business Service, Foster Bldg., Denver, Colo.

FOR SALE or trade: Ranch 18 miles east Teapot Dome and Salt Creek Oil Fields. Mineral rights intact. Owner, P. O. Box 603, Laredo, Tex.

FOR SALE—Two tracts land with deposits Kaolin white clays fuller's earth, tracts fully described in geological bulletin No. 470, pages 316-318 and 335, known as Tatum and Burkardt farms. Write for particulars. Box 40, Burton, Tex., Washington County.

INVEST your money where it will earn you real interest from start, large future possibilities. Write Irwine M. Lock, 17 N. LaSalle St., Suite 460, Chicago, Ill.

I OWN 500 acres with ½ million pine and ¼ million hardwood timber, Sec. 34, Twp. 7, R. 10W, Sabine Parish, La. Price $10 fee simple. P. O. Many, La. G. C. Boswell, care Sheriff's Office.

POTASH IN TEXAS! Carefully compiled copyrighted map covering 6,000 square miles, 85 counties, West Texas and New Mexico, showing recent potash discoveries and location three Government tests just starting. Price $5. Pamphlet quoting authentic authorities on subject $2 extra. Also famous Zingery oil maps several West Texas Counties. Zingery Map Co., Abilene, Tex.

CAPITAL — An experienced, dependable broker with following, will give personal atteniton to financing of worthwhile proposition. B. W., 810 Broad St., Newark, N. J.

SEVERAL large solid blocks in west Texas and eastern New Mexico, free for drilling contracts. W. J. Williams, Box 235, Plainview, Tex.

Chicago Outlook Is Not Promising

Trade Will Be Satisfied if Prices Hold. Higher Gravities Helped by Export Demand. Weather Handicap

By J. B. Waldo

CHICAGO, Nov. 15.—Another week-end has been spoiled by rain which has continued for 48 hours. There was little activity in the spot market today largely a result of weather conditions. The market for U. S. Motors and lower gravities of gasoline does not look promising and if it holds its own this week the trade will be satisfied. Higher gravities have been helped by both a domestic and export demand, there being some buying here of the 375 endpoint for export and reports from the field are of considerable purchases for shipment over November or the remainder of the year.

Warmer weather is expected for several days and the market for distillate is rather easy. So is kerosene which is more freely offered. The gas oil market is expected to remain firm as are the higher gravities of fuel oils but the heavy grades of fuel are rather easy and may sag a little if the demand is not improved by colder weather soon. The market is much puzzled by the crude situation and any opinion ventured is guarded by some reference to a possible crude decline.

If there is one item of business information that is widely broadcast by the press it is the average daily crude production. The weekly estimates from The Oil and Gas Journal are repeated by practically every daily newspaper in some form. Every oil reporting agency daily or weekly copies these reports so that they get a very general circulation among oil men and the public as well.

Crude Prices and Oil Burners

A prominent oil man talking of the situation in general made the statement that a cut in crude prices would encourage the installing of more oil burners. The public is watching conditions closely to determine what are the prospects of a larger or smaller supply of oil, of higher or lower prices. In this connection the advance made since the opening of the month by many Chicago distributors of furnace oils will certainly have its effect on that part of the public who were hesitating regarding installing of oil burners. The distributors claim that the advance was forced upon them by the high costs of oils at the refinery. One distributor stated that there were few if any local oil dealers who had contracts over the winter for gas oil at less than 4 cents and that many had nothing but a contract for their needs at the market price. On a 4-cent basis of costs at the refinery gas oil laid down here would be low in price at 6.22 cents and the average contract price was 8¼ cents to the consumer. This leaves the dealer but a 2-cent margin. The margin on distillates is only a shade better so the dealers claim that they were forced to advance the price to the consumer. Take it all in all under all conditions and in all products, low prices do increase consumption and for that reason the average oil man wants a cut in crude believing that it will increase the demand for oil products.

Gasoline Movement Steady

The gasoline market did nothing spectacular during the week just closed. Buyers continued to buy conservatively and while there was a steady movement it was not more than seasonable. There was a very fair movement on contracts many stating that their customers were taking their allotments regularly. The spot business was fair, not more, and there was little evidence of any considerable buying, many of the orders in this spot market being for one or a few cars and as has been the case for some weeks, the quickest possible delivery was required. The demand for the higher gravities was better than for the U. S. Motor grade and several sellers reported a rather good demand for these grades.

The no-knock gasolines were in request and some of the marketers and even refiners with no such product are finding it difficult to supply the demand. The fact that a refiner can supply a good gasoline possessing the requirements of the no-knock gasoline is proving a decided asset to that refiner. The Marland Refining Co. has announced to its customers a gasoline which it is claimed possesses the full list of no-knock specifications including antiknock, anticarbon, quick starting, rapid accelleration and increased mileage. It has been supplying this gasoline to the regular trade for some months and is now contracting to supply it to its regular distributors in three gravities, 56-58 450, 58-60 437 and 60-62 400 endpoint at the same price as provided in the contracts for the regular gasoline which the company has supplied regularly. The management of the Chicago office reports that the demand is in excess of the present ability to supply but that the company will have plenty later. There is little doing in the natural gasolines here but prices are rather firmly held.

Tendency Toward Lower Levels

The course of the market during the week has been toward slightly lower levels. There has been no pronounced decline but a steady sagging in prices which totaled for the week just a quarter of a cent. The favorite quoted price with many is still 9½ cents but they will meet competition down to 9¼ cents for the U. S. Motor grade. While the demand for the higher tests is better and in some cases said to be really good. these are also purchasable at one-quarter cent less than a week ago. There has been no great pressure to sell by refiners but some have wanted some business and have responded to the suggestion of lower prices if the movement of gasoline was desired.

The demand from consumers is still holding up and some say that it will hold until the end of the football season. It is had to realize what this sport means to the general public. Many of the thousands attending the games use their cars and travel long distances and thousands of cars are parked at the stadiums during the game so that really the consumption of gasoline on account of the craze for football is an important item in the industry. The demand for tickets to the Army-Navy game at Chicago, two weeks off, is so great that $100 is being offered for seats which cost $15 to those who are fortunate in being able to secure them.

Kerosene Demand Good

The call for kerosene is really surprisingly good. There is no special reason for this demand unless it be the fall plowing and even for the tractors many of the station agents say that farmers in their vicinity are using gasoline instead of kerosene as it works better in cold weather. The difference in cost is not great enough to induce many farmers to stick to kerosene, although the averager farmer is very careful in spending money for motor fuels. An oil man who owns a farm was up looking over his property last week and he said that he believed that his was the only farm on which gasoline trucks were being worked as the farmers had all stored their trucks and mtors and were using their horses even when it took a lot longer. Of course this may be exceptional but the great seasonal reason for the decline in the gasoline consumption is the disuse of gasoline vehicles of all kinds in the country during the period of colder days and long nights. The city man may not use his auto as much as in the warm weather but the taxis and buses are used more. The market here for kerosene is fairly firm with prices showing a slight decline during last week, although some refiners are asking and selling at the same price as two weeks back.

Distillates

There has been no real cold weather as yet to give a real impetus to the consumption of distillate and as supplies are plentiful the market has reflected condition in its prices. There are some who wanted business and they have named lower prices while others have been content to wait. The result is that a good low test 38-40 distillate has sold as low as 5¼ cents and as high as 5⅞ cents the same day. The trouble has been that the dealers wanted a big demand too early in the season. In the spring the dealers usually begin to talk about a larger gasoline demand and higher prices a month before it can possibly come under usual conditions. It might be remembered that in this climate the average season has little and sometimes no cold weather until after Christmas. It grows gradually colder and colder as the days grow shorter but the old adage holds about the cold growing stronger when the days grow longer. Supplies seem very ample now but a real spell of subzero weather would make them disappear rapidly. Right now a 5¼-cent price for a good desirable 38-40 straw distillate would seem low and 5½ cents a reasonable price. There are several refiners who would not sell at this figure but are asking 5¾ cents for their product. There has been a little more inquiry for the 36-38 distillate and this is fairly firm at 5⅛ to 5⅜ cents.

Gas Oil Active

The gas oil business has been active and the market is firm. There are some offerings of dark gas oils that have rather high cold tests that can be bought at 4 to 4¼ cents but for a gas oil suitable for domestic oil burners the low price for even a dark oil is 4¼ cents with sales made at 4⅜ cents. For the lighter colors the market is 4½ cents easily. There is a steady demand but also there is less rush to the business simply because nearly every user has some oil in store. The gas companies have considerable oil coming on contracts in most cases and only an occasional inquiry is received from these buyers. They are usually looking for cheap oil. The industrial demand is good from the limited number who must have this oil and as is said, the jobbers are buying but most of them have some oil either in store or due them from previous purchases so that they are rather slow to order but they do and the aggregate is for considerable amounts. Besides this and largely responsible for the higher prices as compared with previous years is the use of straightrun gas oil for cracking stock. There is so little of the straightrun gas oil available to the spot market buyer that the business in this has dropped to small quantities here any many do not quote it and some decline to try to buy it as they say it always means grief.

Fuel Oil

The average fuel oil man will say that there is little or nothing doing in fuel oils but this is not true, though it may be with some lines of the industry. The industries are active as has been shown by the record of employment. There has been little if any changing over recently from oil to coal or other fuel. There is probably more oil being burned today than ever but the refiners have in so many cases made direct contracts that the spot business is greatly curtailed. Some of the marketers of fuel oil have endeavored to continue to hold their business by reducing the profits on their sales. Twenty dollars a car used to be a regular profit, then it got down to $10 and now $5 is more common. And even at these low returns for the effort of making the sale and delivering the goods, the business is at present being done here by the refiners who quote and contract direct through their own offices or representatives. Of course, what these refiners want is the large contracts running for months or perhaps a year with a number of cars each week or even each day and they can make the terms that land the business if they desire it. But it is not always satisfactory to either the refiner or his customer so that the refiner's customer of today may be back in the spot market next time.

There is no scarcity of oil in general, although the higher gravities are not plentiful. There is a lot of residual oil from the process plants that is offered and some of it, the users say, has every thing in it but heat units but this is in part because of lack of experience with this grade of oil. It took a lot of arguing and demonstrating to make the buyers believe that they could use any of the heavier grades, even the 24-26 was thought too heavy.

There is no change in the Smackover situation. Some sales have been made of treated oils at $1.25 and this is bottom right now with many asking $1.30. There has been a little adjustment of fuel oil prices and some of the higher gravities are fractionally higher and firm while the heavier oils are rather easy in tone and a fraction lower in price. The 24-26 gravity is now 2½ cents lower as quoted by the trade here than a week ago.

Lubs Unchanged

The lubricating situation is very little changed. Refiners are looking more ahead than behind. They are planning for next season rather than talking of their contracts to be filled and there is a very decided opinion that the demand is increasing for the best grades. There has been a lot of educational work done along this line. Some of the sellers of bright stocks are said to be selling lower than they would have done but the saying holds that price lists are merely a way of introducing the subject and the average sale is the result of some sort of a price compromise. This condition seems to have arisen from the idea that there are large profits in the sale of lubricating oils and when these profits were found not large when reduced to the net profit, some have tried to make the profit grown by efforts to find that "something just as good" at a lower price. The price is easier found than the quality.

In nearly every state there are some sore points in the tankwagon price situation. It is inevitable that with margins of the present range there should be some local price cutting. One of the ostensible theories for a price cut is the fact that an oil company is not securing the percentage of the business that its investment in that locality entitles it. This is a rather far-fetched argument. One company in a town gets all the business, has all the investment. In comes company No. 2, and makes an investment larger than No. 1. Does that investment entitle No. 2, to more than half the business of that community? It does if it can get it and the usual result is a price war. There is no ques-

tion that there are many communities that are bearing a burden of excessive service. Old-time oil men used to say that if they could not sell 1,000 gallons a day through a station they would close that station. If there were a limit to the number of stations based on the actual average daily sale of 1,000 gallons of motor fuel, there would be few if any price wars. There has been no general change in the tankwagon prices of gasoline or kerosene over the territory of the Standard Oil Co. of Indiana, and none is expected by the average oil man until the price of crude is cut and not necessarily then.

RULES OIL NOT FOOD; USED AS ADULTERANT

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Nov. 13.—Mineral oil may not be used in the manufacture of foods, says Dr. P. B. Dunbar of the Bureau of Chemistry, Department of Agriculture. He said that all suggestions of that kind have met with the absolute veto of the Department of Agriculture on the ground that they are violations of the foods and drugs act. Doctor Dunbar's statement follows:

"Mineral oil is merely a highly refined lubricating oil, harmless if properly refined but with no food value whatsoever. When properly refined, it is a pure product which is useful in medicines.

"Since it has no food value it has occurred to a number of food manufacturers to substitute it for food fats in products to be used in the diet of people inclined to obesity. These manufacturers have come to the Bureau of Chemistry and asked what position would be taken on the substitution of mineral oil for olive, corn, cottonseed oil or other fats in the making of anti-fat salad dressing and other food products.

"Our answer has always been that the substitution of mineral oil in food products is absolutely indefensible, a violation of the Foods and Drugs Act. It is a violation; first, because the Foods and Drugs Act holds that any food shall be considered adulterated if any substitute has been mixed or packed with it so as to reduce or lower or injuriously affect its quality or strength; and second, if any substance has been substituted wholly or in part for the article.

"Our position has been unequivocal that mineral oil has no place in food and that food to which a mineral oil has been added is adulterated. Should we take any other position, it would merely be an opening for the introduction at the whim of food manufacturers of mineral oils for fat oils whenever it suited their convenience to do so, with the consequent probable debasement of the food supply of the nation.

"We do recognize that mineral oil has a certain medicinal value and is useful under certain conditions as a laxative. We also recognize that some people, because of peculiar physical condition, must abstain from fats. When those people substitute mineral oil for fat oils they are taking it as a drug or medicine. There is no objection under the law to a manufacturer putting out a food product containing mineral oil as a medicine, but, in such cases we insist absolutely that the label shall be such as to make it perfectly plain to the buyer that it is a drug.

"There is a public health problem involved in our stand, since nutrition experts tell us that a great portion of the people, especially in some cities, is just above the danger line in nutrition. Should their diet be debased further there would be practical starvation.

"There have been a variety of proposals for the use of mineral oil in food products, all of which have been rejected by the Bureau of Chemistry. One of these called for the use of mineral oil in canning sardines. A number of requests have come for its use in salad dressings and as a coating for fruits. Its use as a substitute for vegetable oils in the preparation of roasted peanuts and as an ingredient of peanut butter has been prohibited by the Bureau of Chemistry."

STRENGTH OF FUEL OIL FEATURES ATLANTIC COAST REFINED MARKET

By N. O. Fanning
New York Bureau, The Oil and Gas Journal, Room 543, 30 Church St., New York City

NEW YORK, Nov. 13.—Strength in the fuel oil situation was the principal feature of the Atlantic Coast oil market during the past week. The Standard Oil Co. of New Jersey restored its fuel oil price to $1.75 for bunker oil, having cut it to $1.65 early in October. None of its competitors followed the reduction.

In some circles it is believed that the big demand for Diesel oil and bunker oil now developing may go far to relieve the general petroleum situation. The increase in crude production has pertained chiefly to light oil, and in view of the outlook for gasoline consumption next year, it is not believed a further addition to stocks will be much of a menace to the situation over a long period. Meanwhile, with the big volume of heavy oil consumption, stocks of fuel oil are likely to be drawn upon substantially this winter, and there will be that much "cracking" stock off the market.

The tendency in fuel oil prices is distinctly upward. The coal market has been exceptionally strong, which has helped the fuel oil situation materially. In addition, there is a boom developing in shipping, which is a boon to fuel oil marketers. There has been a big run on construction of Diesel driven vessels, also.

In addition, the installation of oil burners in domestic apartments and private homes, office buildings and industrial plants, has reached large proportions. One authority tells of a case where the consumption of oil for domestic heaters has jumped from 1,000 to 250,000 gallons a year in a small town, within the past two years.

California and the Gulf Coast are doing much to fill the fuel oil demand on the Atlantic Seaboard. Mexico is supplying considerable fuel oil, but is not a dominating factor in the market. One company is supposed to have withdrawn 2,000,000 bbls. of Smackover heavy oil for shipment to the Atlantic Coast within the past two weeks. This oil came largely from storage.

Gasoline Situation

Meanwhile, the gasoline situation is somewhat unsettled as a result of the psychological effect of recent crude price reductions. The Standard Oil Co. of New York alone has maintained the peak tankwagon price, among the big Standard marketers of the country. How much longer it will hold out in the face of a distinctly downward tendency elsewhere is not ascertainable. It is believed, however that a general reduction in New York and New England tankwagon prices is due shortly.

Lubricant Market

Lubricating oils are holding firm. Domestic demand is improving, especially the "smokestack" trade, with inquiries indicating a very good turnover during the remainder of the year. The export demand for lubricants and wax is below expectations, however, which explains a mixed tone in the general market situation.

Paraffin wax exports are on a restricted scale. Italy and Spain are in the market but orders from other European countries, especially the United Kingdom, fail to come in. It is reported Persian supplies are affecting American sales somewhat at present.

Petrolatum is also slow, with prices unchanged. A subnormal export demand is said to be the cause of this situation.

Export Market

Although there is a somewhat better demand for bulk gasoline and kerosene, this branch of the export trade is still lagging. It is difficult to find any outstanding feature of the export situation, unless it is continued heavy shipments to Spain. There is a special reason for this, according to exporters, who say that an oil trade war between Russian and American oil marketers is being waged in that country. Russian interests recently entered the Spanish market for the first time, and are going after business aggressively.

One method of combating this on the part of the American companies is that of importing crude oil which is cheaper than importing the refined products, and of turning out the products there.

Petroleum Exports

The following table shows principal exports of petroleum and petroleum products from New York during the past three weeks (figures in gallons unless otherwise noted):

	Week Ended Nov. 10	Nov. 3	Oct. 27
Gasoline:			
Bulk	3,392,948	.....	.....
Barrels	.....	105,000	187,500
Cases	2,110,720	692,240	1,629,948
Kerosene:			
Bulk	4,698,102	690,712	.....
Cases	2,382,020	2,635,440	2,424,430
Gas oil:			
Bulk	290,935	.....	.....
Diesel oil:			
Bulk	481,773	.....	.....
Lubricating oil:			
Bulk	1,884,184	.....	.....
Barrels	590,650	1,361,450	1,067,150
Cases	239,920	114,680	116,980
Lubricating grease:			
Bbls. (lbs.)	137,700	1,149,750	1,959,750
Paraffin wax:			
Bags (lbs.)	814,000	2,026,200	1,191,960
Bbls. (lbs.)	437,000	.....	1,391,275
Petroleum asphalt:			
Bbls. (lbs.)	1,098,675	692,550	1,436,400
Crude oil:			
Bulk	1,473,747	.....	.....

The foregoing figures include shipments of 500 bbls., 1,000 cases, or more.

Tanker Charters

The tanker charter market continues exceptionally strong. Rates are at the peak.

New fixtures include the following:

Tanker City of Freeport (Am.), 2,628 tons net, lubricating oil, north Atlantic to United Kingdom, 42s. 6d., December loading.

Tanker ———, Gulf to United Kingdom, 45s., option two ports, 46s. 6d., December loading.

Tanker Manatawney (Am.), 90,000 bbls. fuel oil, Gulf to United Kingdom-Continent, 45s., December loading.

Tanker Lucellum (Br.), 3,233 tons net, gasoline, Gulf to United Kingdom-Continent, 50s., December loading.

This 50s.-rate constitutes a record for recent fixtures, and is double the low rates quoted a year ago.

Oil Receipts Large

Exceptionally heavy receipts from Louisiana were responsible for boosting the total of oil receipts at Atlantic ports for the week ended November 10 to 3,996,000 bbls., a daily average of 571,000 bbls. Receipts from the Gulf Coast alone amounted to 2,695,000 bbls., a daily average of 385,000.

Crude Receipts

The following table shows estimated daily average receipts of crude and refined oil by water at Atlantic Coast ports for the last three weeks; also monthly record for the last 12 months (figures in barrels):

	Week ended Nov. 10	Nov. 3	Oct. 27
Gulf Coast	385,000	311,000	227,000
Pacific Coast	85,000	91,000	65,000
Mexico	83,000	17,000	37,000
*South America	18,000	82,000	34,000
Total	571,000	501,000	363,000

	Daily Average by Months Gulf	Pacific	Mex.	*S. Am.	Total
1926:					
Oct.	270,000	71,000	61,000	43,000	445,000
Sept.	299,000	98,000	63,000	58,000	518,000
Aug.	320,000	61,000	71,000	46,000	498,000
July	360,000	66,000	115,000	36,000	577,000
June	396,000	104,000	117,000	18,000	635,000
May	318,000	66,000	114,000	25,000	523,000
April	326,000	92,000	126,000	20,000	564,000
Mch.	317,000	97,000	152,000	26,000	592,000
Feb.	332,000	73,000	104,000	18,000	527,000
Jan.	279,000	59,000	65,000	31,000	434,000
1925:					
Dec.	298,000	56,000	90,000	13,000	457,000
Nov.	259,000	36,000	80,000	12,000	387,000

*Including Trinidad.

The foregoing estimates are based on carrying capacity of incoming oil-laden tankers.

SHELL OF CALIFORNIA TOUR

SAN FRANCISCO, Calif., Nov. 13.—President Van Eck, Frederick Allen of Lee, Higginson & Co., and Samuel Pryor are here to confer with officials of Shell Co. of California after tour of the state.

Good Well in Old Field in Navarro County, East Texas

MEXIA, Tex., Nov. 13.—A well starting at 35 bbls. an hour in the old Barclay & Meadows Pool, in Navarro County, was the best of the week in the east central Texas area. Five completions and one new well started was the record for the week. Three of the five completions were dry. The new operation was the Grayburg Oil Co.'s No. 2 Riddle, Varella Survey, Nigger Creek district, which has spudded in.

In Limestone County, the Evangeline Oil Co. abandoned No. 1 Bass & Sweatt, Varella Survey, at 3,690 feet. It was dry all the way. Killam and others' No. 1 Montgomery, McAdoo Survey, was abandoned in shale at 3,266 feet. The Transcontinental Oil Co.'s No. 3-A Rosson, Varella Survey, made a 20-bbl. pumper from sand at 2,839-41 feet, and was plugged back from a total depth of 2,884 feet.

In Navarro County, the Sun Oil Co.'s No. 2-A Swink, Hudson Survey, started at 35 bbls. per hour from sand at 2,995 feet.

In McLennon County, the Pecan Gap Oil Co. and others have a dry hole in No. 1 E. W. Punchard, Sanchez Survey, total depth 2,134 feet.

ARGENTINE PRODUCTION AND CONSUMPTION GROW

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Nov. 13.—The state oil fields of Argentina during 1925 increased their crude oil output by about 900,000 bbls., states Sherwood H. Avery, assistant trade commissioner at Buenos Aires.

The production of the private oil companies is not given in the official figures, but is reliably estimated at 2,054,480 bbls. The greater part of the Government oil production came from Comodoro Rivadavia, where 257 wells were operating, the other 15 wells being in Plaza Huincul. The state drilled 129 new wells at Comodoro Rivadavia during the year, totaling 81,306 meters of drilling, and drilling at the other field came to 6,685 meters.

The oil fleet of the Petroleum Division of the Argentine Government has recently been increasd to six tank ships, and a seventh tanker, contracted for in England, is to be delivered shortly. The registry of these ships will then be 47,644 tons. Three barges and two tug boats are also to be added to the fleet.

Petroleum sales in Argentina during 1925 included 519,080 tons of crude petroleum, 5,603,364 liters of gasoline, 338,274 of aviation gasoline, 2,578,073 of kerosene and 205,213 of gas oil. These are all large increases over the corresponding figures for the preceding year, the increase in sales of aviation gasoline amounting to considerably over 100 per cent.

The sale and distribution of the petroleum products of the Argentine Government was awarded by public bid, but the Petroleum Division is retaining control, an arrangement which, the minister's report states, has proven satisfactory.

SULPHITE ALCOHOL AS FUEL

The use of sulphite alcohol in Sweden as a motor fuel commenced on a large scale in 1925. The alcohol is mixed with gasoline, and sold under the trade name, "lattbentyl." It retails at 38 ore per liter, the price obtained for gasoline. It is reported that six factories are now operating with sulphite alcohol in comparison with only two about one year ago. There are, however, 10 or 12 additional distilleries, which are prepared to produce sulphite alcohol if the demand warrants an increased supply.

Simple Code for Refinery Accounting

Workable Method of Determining How Costs Should Be Divided Among the Several Manufacturing Units of a Plant

By H. L. Kauffman

Each company operating refineries has its own particular method of refinery accounting. Some of these methods are quite complex; others are very simple. The success of obtaining accurate construction and operating costs in any organization depends upon how completely the co-operation and full assistance of each foreman is obtained. As the chances of obtaining the necessary detailed information from the foreman are greater, the simpler the method of accounting—the reasons for having in effect as simple a method of accounting as possible—are readily discernible.

This article, and a second discussion which will appear later, deals with the method which was used by a 10,000-bbl. refinery with skimming, cracking and lubricating plants. The operation of the refinery is shown by a study of the "Skeleton Code of Refinery Operation" given below. A copy of this code in booklet form, suitably perforated for binding in a looseleaf pocket notebook, is in the hands of every foreman as a ready reference in writing out charge accounts for work done.

The code, as given, is followed by foremen at the refinery in writing interdepartmental work order requests; requisitions upon the warehouse for material in stock; requisitions for the purchase of new material; and either may or may not be referred to on ordinary repair orders or emergency repair orders as issued by the refinery superintendent or engineering department. If reference is not made on such orders to the "Code Number," indicating where the work has been done, the accounting department is enabled to distribute the cost to the proper place because of the fact that on such orders is also written, carefully, a description of the nature of the work and where it is to be done.

The code, in full, follows:

TWO ARTICLES

This is the first of two discussions on the subject of refinery accounting and is concerned largely with the operation of crude and rerun stills and shipping expense.

A skeleton code is given in full, even though everything contained therein may not be directly applicable for use in other refineries. It is given primarily as an indication of part of the method of refinery accounting that one refiner has found successful after being in use for nearly two years; and with the thought that a study of the same may be suggestive to those executives who are interested in improvements in methods of accounting in their own organizations.

The second discussion, which will appear in a subsequent issue, will deal with the lubricating plant, boiler house, power house, fire-fighting equipment, gasoline recovery system and other features of the refinery.

SKELETON CODE OF REFINERY OPERATIONS

		Repair and Renewals		Operation and Expense	
	REFINERY MANUFACTURING:	Labor	Material	Labor	Material
1	Crude stills	1	2	3	4
2	Rerun stills	1	2	3	4
3	Dubbs stills	1	2	3	4
4	Batch treating	1	2	3	4
5	Continuous treating	1	2	3	4
6	Tank farm	1	2	3	4
7	Shipping expense	1	2	3	4
	LUBRICATING PLANT:				
1	Treating	1	2	3	4
2	Filtering	1	2	3	4
3	Dewaxing	1	2	3	4
4	Lub stills	1	2	3	4
5	Compounding	1	2	3	4
6	Barreling and barrel shipping	1	2	3	4
7	Lub oil shipping in tank cars	1	2	3	4
	PRORATA:				
1	Refinery boiler house	1	2	3	4
2	Water system	1	2	3	4
3	Refinery transfer pump house	1	2	3	4
4	Air compression	1	2	3	4
5	Electric power expense	1	2	3	4
6	Laboratory expense	1	2	3	4
7	Experimental department	1	2	3	4
8	Foamite system	1	2	3	4
9	Yards expense	1	2	3	4
10	Office expense	1	2	3	4
11	Tool and supply house expense	1	2	3	4
12	Salvage yard	1	2	3	4
13	Superintendence	1	2	3	4
14	Drafting office	1	2	3	4
15	Machine shop	1	2	3	4
16	Welding shop	1	2	3	4
17	Blacksmith shop	1	2	3	4
18	Paint shop	1	2	3	4
19	Carpenter shop	1	2	3	4
20	Pipe shop	1	2	3	4
21	Common labor	1	2	3	4
	MISCELLANEOUS ACCOUNTS:				
1	Hatfield gas system	1	2	3	4
2	Absorption plant	1	2	3	4
3	Truck and hauling expense (state number)	1	2	3	4
	ACCOUNTS RECEIVABLE:				
1	River water system	1	2	3	4
2	Production department	1	2	3	4
3	Pipeline department	1	2	3	4
4	Parco Development Co.	1	2	3	4
5	Warehouse	1	2	3	4
6	Sales department samples	1	2	3	4

Explanation of Code

In the paragraphs following will be given an explanation of the skeleton code of refinery operating accounts as it is used by the accounting, operating and mechanical departments of the refinery, for the purpose of correctly classifying and charging the various plant costs. All persons who use this code are instructed to the effect that in all cases, when possible, each charge should be made direct to one of the basic unit accounts outlined under the five divisions. It is also to be noted that all accounts have two subdivisions: operating labor and material.

In "drawing up" any system of refinery accounting, one of the first things to be decided upon is "just what equipment or what percentage proportion of a particular piece of equipment shall be charged against any given manufacturing unit." How this refinery has answered this question will be shown in the paragraphs following in which will be given detailed data concerning the equipment (or percentage portion thereof) of which each manufacturing unit consists.

Crude Stills

The equipment comprising the crude stills is considered as starting with the crude oil line on the tank side of the gate valve placed on the crude oil line from the field (main pipeline transporting crude oil to the refinery). All crude oil storage tanks, all residuum (topped crude) storage tanks, as well as steam coils, levees and all pipe and fittings inside of levees is also chargeable to the crude stills. In addition thereto also is included all crude suction lines from the crude storage tanks to the stills and all crude suction lines from the outlet valve on tank cars to the transfer pump house.

Other equipment that is charged at the refinery to the crude stills is listed below:

1. All fire stills proper (10 of them—5 at each of two batteries) used for the distillation of crude oil; towers, pumps, condensers, all connecting pipelines and manifolds, and all other equipment used specifically in the primary distillation of the crude oil.

2. The crude oil "booster" pump located in the tank farm, and used occasionally in "charging" to the crude stills.

3. All cooling boxes and heat exchangers, or proportional part thereof, used exclusively in charging crude oil to or drawing hot residuum from the crude stills.

4. All run down tanks into which pass exclusively products from the primary distillation of the crude; 50 per cent of one run down tank into which prime white distillate from the rerun stills also passes; and 70 per cent of two other run down tanks, this representing the proportion in which the tank is filled by products from the crude stills.

5. All steam coils in run down tanks and walkways over these tanks.

6. Pumps and manifolds in transfer pump house used in transferring products from crude still run down tanks, as well as suction and discharge lines from such tanks.

7. Forty per cent of the levees around the run down tanks at No. 1 Battery and 60 per cent of the levees around the tanks at No. 2 Battery.

In addition to the above, 50 per cent of each of the receiving houses at the two batteries; 50 per cent of the telephone system at each battery; 50 per cent of a small fuel oil tank and piping, including filling line from connection at loading rack fuel line and suction to No. 2 Battery fuel oil pump; and 50 per cent of the entire fuel oil system (including pumps, heaters, pipes, valves and fittings)—all this being chargeable to crude still equipment. Also 45 per cent of a substation transformer, and building for housing same, located at No. 2 Battery.

Rerun Stills

As in the case of the crude stills, so, too, to the rerun stills is charged all field storage tanks containing the stock (pressure distillate) charged to the rerun stills and the products (gasoline, prime white distillate and gas oil) obtained from the distillation; as well as all levees, steam coils, and all oil pipe and fittings inside of levees, and all transfer lines leading to and from such storage tanks to the transfer pump house and to the rerun stills.

All pumps and manifolds at the batteries used in handling any of the stocks or products obtained from the rerun stills are chargeable to such stills. So, also, are the fire stills proper (eight of them) in which the oil is rerun, and all towers, condensers, pipelines and manifolds and all other equipment used in connection with the operation of such stills, chargeable to same.

Other Items

Other items of equipment chargeable to the rerun stills include:

1. All cooling boxes and heat exchangers, or proportional part thereof, used exclusively in charging pressure or rerun distillate to or drawing hot "bottoms" from the rerun stills.

2. All run down tanks into which pass exclusively products from the distillation of rerun or pressure distillate; 50 per cent of one run down tank into which prime white distillate from the crude stills also passes; and 30 per cent of two other run down tanks, this representing the proportion in which the tank is filled by products from the rerun stills.

3. All steam coils in run down tanks and walkways over these tanks.

4. Thirty per cent of levees around both No. 1 and No. 2 batteries.

5. Thirty per cent of No. 1 Battery and 50 per cent of No. 2 Battery receiving house buildings.

6. Forty per cent of small fuel oil tank and piping and 40 per cent of the complete fuel oil system used at both batteries—each of which was described above under "crude stills."

7. Thirty per cent of the telephone system at No. 1 Battery and 50 per cent of the telephone system at No. 2 Battery.

8. Twenty-five per cent of the substation transformer and building located at No. 1 Battery and 50 per cent of similar equipment placed at No. 2 Battery.

Dubbs Stills

The Dubbs cracking plant proper comprises the furnaces, expansion chambers, dephlegmators, all pumps, pipelines, valves fittings, manifolds, receiving house and any other equipment directly in use at this plant.

It includes all run down tanks in which is stored the charging stock for the stills and the pressure distillate or any residuum produced from the cracking process. Although gas is usually the fuel used in firing the pressure stills, an auxiliary fuel oil storage tank is always in readiness, and hence this, too (together with all pipes, valves, fittings and steam coils between this tank and the Dubbs plant, as well as all suction and discharge lines between this fuel tank and the transfer pump house) is chargeable to the pressure stills.

The field storage tank containing the untreated pressure distillate—this including the tank itself, steam coils, levee, and all oil pipe, valves and fittings inside of levee, and all pipelines for transferring the pressure distillate from the cracking plant run down tanks to this field storage tank—is all chargeable to the Dubbs stills.

The residuum sumps and blow pits, including lines and box protection to and from these sumps and pits, as well as the pump for handling the residuum, are considered as comprising part of the Dubbs plant equipment. So also is considered the coke conveyor and all coke handling conveyances and a certain part of the industrial railroad used in transferring the coke from the Dubbs stills to permanent storage.

The "change room" used by operators of the Dubbs stills is chargeable to said stills. Likewise, all telephones used directly at the cracking plant; the transformer used directly for this plant and one-third of the transformer room in the "change house"; as well as all wiring leading from the above-mentioned transformer to the Dubbs plant proper.

Light Oil Agitators

Equipment (or percentage proportion thereof) used in the batch treating of light oils at the refinery is listed below:

1. Two light oil batch agitators and all pipe, valves and fittings to and from these agitators and transfer pump house, as well as all charging pumps and the manifold to said pumps located in the refinery transfer pump house and in the continuous light oil treating plant building.

2. One water pump and discharge line from this pump to the agitator, as well as all steam connections at pump.

3. One sludge pump and sludge tank in ground.

4. Fifty per cent of a caustic pump

and of all caustic melting tanks, but all of the caustic lines used directly for agitators.

5. One 12 by 12-foot acid storage tank, two 3 by 3-foot and two 3-foot 6-inch by 9-foot acid blow cases.

6. Oil separator, separator pump and separator pump house; and all pipe and flow lines from both agitators to separator, as well as the discharge line leading from the separator to the sewer and the 4-inch oil line leading from the separator pump to the slop tank at No. 2 Battery.

7. All field tanks (including two bleacher tanks) containing products treated in the batch agitators, as well as levees, steam and air coils, and the suction and discharge lines between these tanks and the two batch agitators and the transfer pump house.

8. Seventy-five per cent of the air compressor system placed in the continuous light oil treating plant building.

9. Twenty-five per cent of the pump house building belonging to the continuous light oil treating plant.

Continuous Treating Plant

Equipment—or percentage proportion thereof—that is considered as comprising the continuous light oil treating plant at the refinery is as follows:

1. Fifty per cent of the continuous light oil treating plant's pump house building.

2. All pumps and manifold piping used in the continuous treatment of light oils.

3. All treating tubes and towers, and the pipes, valves and fittings connecting the same.

4. Water, caustic and acid tanks at the continuous light oil treating plant, and all connecting pipelines.

5. The 10 by 30-foot run down tank and transfer line connecting same to continuous light oil treating plant.

6. All suction and discharge lines between the refinery transfer pump house and continuous light oil treating plant and to storage.

7. Twenty-five per cent of 8 by 25-foot acid storage tanks and concrete pit around same.

8. Twenty-five per cent of the acid line from tank cars. Incidentally, 25 per cent of the labor cost for unloading acid cars is also charged to the continuous treatment of light oils.

9. Acid line from the acid tanks to the continuous light oil treating plant; acid storage tank; and the acid line from the main acid tank to the acid storage tank just mentioned.

To the tank farm is charged only such incidental items as gauge lines, gauge rods, etc., that can not be charged directly to the tanks.

Shipping Expense

Under "shipping expense" are chargeable the loading rack proper; railroad track; and all piping, spouts and similar equipment used in loading cars. Also, all pumps used exclusively transferring products to the loading rack and pipelines leading to the rack from the transfer pump house.

To this account is also charged all telephone and lighting system, used in connection with loading cars, up to main line connections; repairs on all tank cars handling products other than lubricating oils and stocks; and a proportionate share of shipping office expense, including salaries and maintenance of such office.

SOUTH AMERICA NOW BIG FACTOR IN OIL

(Continued from Page 39)

try continues to harp on the "transportation problem" in connection with South American production. Individual producers in the states may have reason to fear the competition of South American oil, but the American oil industry as a whole most certainly has every reason to promote it. The American oil industry has about resigned itself to reckless drilling as a permanent condition of the business. It is a problem that defies solution. Large reserves of oil of a wide range in gravity, in strong hands outside the United States but economically adjacent thereto, will do more to check reckless drilling in the United States and to stabilize the oil industry of the world, than any other one factor. It will mean greater and more certain profits to producers as well as refiners, and cheaper petroleum products to consumers.

The conspicuous success of the American oil companies that have come into South America in a large way, should stimulate to others to follow. The Standard of New Jersey, has a settled production of 25,000 bbls. per day in Peru, of oil approaching our Pennsylvania crude in refining value. The same company has 30,000 bbls. per day in Colombia, which will be increased to 50,000 bbls. by additional pipeline facilities being provided. The Gulf has 25,000 bbls. per day in Venezuela, with a prospect of doubling it in a few months. The Pan-American is approaching a similar position. The Standard of California, has discovered an important light oil field during the first year of its operations in Venezuela. The Union Oil Co. of California, through its recent deal with the Pantepec Petroleum Co. of Venezuela, is about to commence large development operations in Venezuela. The Atlantic Refining Co. also has substantial commitments in that country. The operations of the above companies, together with the phenomenal success of the Royal-Dutch group in Venezuela, and the production gained by other English companies in Trinidad, Peru and Ecuador, has rendered semi-proven or probable oil territory vast areas that await development. The fear that all the available territory has been taken up need not deter any from investigating with a view of extending operations to South America.

Big Area Covered

In the Maracaibo Basin in northwestern Venezuela, an area 160 by 180 miles is within a quadrangle defined by producing fields. Six hundred miles to the eastward there is production and all the intervening area along the north coast is possible oil territory. On October 1 there were 307 wells producing 103,000 bbls. per day, ranging in gravity from 14 to 40 Baume. There were drilling 40 wells in proven fields and 33 wildcats.

In Colombia the producing fields of the Tropical Oil (International Petroleum-Standard of New Jersey) are about 450 miles from the Caribbean Sea east of the Magdalena River. Three structures have been proven by 121 wells, with a potential production of 85,000 bbls. per day, 30,000 of which are being shipped through the Andian National pipeline which will shortly be increased to 50,000 bbls per day by additional pipeline capacity under construction. One producing well has ben completed on the Barco concession and is capped awaiting transportation. Exploratory drilling is under way in the Sinu Valley and near the coast south of Puerto Colombia. In the area from the proven fields at Infantas 200 miles north to Banco and 50 miles in width between the Magdalena River and the western Cordilleras of the Andes, exploratory drilling is under way or about to commence on four large concessions. Colombian crude is a well balanced product of around 28-30 gravity.

Situation in Peru

Peru has been an oil producing country for over 20 years past. The present area under active development is less than 20,000 acres out of some 3,000,000 acres of possible oil territory in the Sechura Desert, extending southward from the Eundorian frontier to the Department of Lambeyeque in northwestern Peru, all west of the Andes and on the Pacific Coast. The International Petroleum (Standard of New Jersey) has here a settled production of 25,000 bbls. per day from 1,286 producing wells which have been completed up to September 1. The Lobitos Oilfields, Ltd., has a production of around 5,000 bbls. daily. Both companies are constantly extending the proven area. The Standard (Peru) has recently taken up large concessions east of the Andes along the Maranon, Huallaga and Ucayali Rivers. Peruvian crude ranges in gravity from 28 to 42 Baume, and closely approximates our Pennsylvania oil in refining values.

The oil fields of the Argentine have developed a production of around 18,000 bbls. a day, largely from Government-owned fields, which only provide about 25 per cent of the country's petroleum requirements. Here the Government is in the oil business and discourages the entrance of foreign oil companies. So long as this policy continues the country will not be of particular interest to the American oil industry, except as a field for the sale of petroleum products. Notwithstanding this, the Standard of New Jersey is doing some drilling in the extreme northwestern part of the country along the Bolivian frontier.

The Trinidad oil fields are producing at the rate of about 4,500,000 bbls. a year. Some 19 companies are operating, all English, excepting one American concern, which has recently gone into the field. To the end of 1925 there have been 1,027 wells drilled on the island.

An English company has developed a production in Ecuador around 150,000 bbls. a year, on the area immediately north of the Peruvian boundary line. Several American companies are drilling in the country.

In Bolivia, the Standard of New Jersey has been drilling since 1923 in the area immediately north of the Argentine frontier. Production has developed in four out of eight exploratory wells drilled to date. Five wells are drilling. An American company has recently secured consessions south and east of Lake Titicaca .

Two American companies are drilling in Panama without any definite result to date.

The consumption of petroleum products will continue to increase as it has in the past. The number of automobiles for both pleasure and commercial purposes will steadily increase in Europe and South American countries and will be gradually introduced into remote parts of the world. The success of experiments with the oil-electric locomotive would indicate that in the not very distant future the petroleum industry may be called upon to furnish oil to supplant the 150,000,000 tons of coal now used each year in railroad operation. Oil in time will drive coal off the high seas, and navigation of the air is destined to play so important a part in our commercial life as to greatly increase the consumption of gasoline.

ROCKY MOUNTAIN AREA

(Continued from Page 60)

Rock River	3,010
Rex Lake	200
Lance Creek	900
LaBarge	160
Poison Spider	600
Osage	330
Lander	390
Byron	70
Pilot Butte	50
Lost Soldier	5,730
Ferris	80
Simpson Ridge	120
Cat Creek	2,600
Lake Basin	270
Florence	525
Moffat	2,375
Tow Creek	520
Fort Collins	3,565
Boulder	25
Rangeley	100
Rattlesnake	1,100
Hogback	850
Table Mesa	585
Artesia	3,000
Sunburst	14,320
Salt Creek	42,600
Total	92,095

DR. BERGIUS TELLS OF SYNTHETIC FUEL

(Continued from Page 40)

after cooling and reducing the pressure, the gas is separated from the liquid and solid material.

"You might say that Providence has given this country such a generous supply of the natural product, crude oil, that any process for producing some synthetically, is, at least for the time being, of hardly more than scientific interest," said Doctor Bergius.

"And yet there are applications of this process which may even right now be of importance to some of the largest industries of this country.

"A coal-liquefaction plant can well be looked upon as a highly improved ordinary gas plant, for the simple reason that the gas produced has the same caloric value, while our by-product, namely, oil, is worth considerably more than the coke of the ordinary gas plant."

C. F. Kettering, of the General Motors Corp., Detroit, Mich., who was to have led the discussion of Doctor Bergius' paper, was unable to attend the first day's meeting.

The refusal of Doctor Bergius to answer questions lent color to rumors that his purpose in coming to this country does not appear on the surface and that negotiations with the Standard Oil Co. are under way. To all questions Doctor Bergius gave the unvarying reply, "I do not wish to talk about that."

Patart's Address

Discussing coal as a raw material for the organic chemical industry, General Georges Patart, Paris, former inspector general of powders, attached to the French war office, said that considering bituminous coal as a complex colloidal organic substance, the most advantageous technical methods were sought to transform such raw material into an industrial organic product. To that end, an examination was made of the different preliminary treatments such as exhaustion by solvents, oxidation, hydrogenation and finally distillation; the latter being able to be executed at either high or low temperature, under reduced or high pressure, with clearing by a current of gas. Distillation appeared to be the most convenient preliminary treatment. Permanent gases produced by distillation can be utilized, by catalysis under pressure, for the production of synthetic ammonia and oxygenated organic compounds. Methane should be made the subject of a special treatment to supply oxide of carbon and hydrogen. The carbon residue from distillation is itself gasified and is made use of in the same way as permanent gases from preliminary distillation. Furthermore, the latter can be combined with gasification in a way to increase the respective efficiency of each of the operations.

Synthesis of Petroleum

Speaking of the synthesis of petroleum by Dr. Frans Fischer, honorary professor at the Institute of Technology, Berlin, reviewed the earlier work on the low temperature distillation of coal, peat and shale. The Bergius hydrogenation-decomposition of coal was then taken up. After discussing older research on the synthesis of higher molecular weight hydrocarbons from lower ones, Savatier's work on the reduction of carbon monoxide was discussed. This led to Fischer's work on the hydrogenation of carbon monoxide with certain catalysts to produce synthol. The methanol synthesis from carbon monoxide and hydrogen and its relation to the Snythol process was explained. The paper concluded with a detailed discussion of Fischer's latest work—the synthesis of hydrocarbons from carbon monoxide and hydrogen at atmospheric pressure and relatively low temperature.

Geologists Discuss Foreign Oil Fields At Mid-Year Meet

By L. M. Fanning

NEW YORK, Nov. 16.—Foreign oil fields were covered in papers presented before the mid-year meeing of the American Association of Petroleum Geologists which opened here yesterday. A session was devoted to a discussion of the continental drift led by W. A. J. M. Van der Gracht. Attendance at the meeting was about 100.

The association will co-operate in arranging a session on geology at the American Petroleum Institute meeting in Tulsa next month and the association's annual meeting will be held at Tulsa March 24 to 26 inclusive, when a symposium will be presented on oil field structures.

Much attention was devoted to South American fields at the mid-year meeting. Michael O'Shaughnessy spoke on the probable effect of Venezuelan production on the crude oil situation. He estimated this year's Venezuelan production at 35,000,000 bbls. and next year's at 48,000,000 bbls.

REFINING AND MARKETING

Texas Independent Oil Men's Convention Held in San Antonio

By B. D. Stevenson

SAN ANTONIO, Tex., Nov. 15.—Texas Independent Oil Men's Association held its fourth annual convention here today and yesterday, discussed trade matters, held a banquet and elected officers. There were 75 registrations. It was one of the best conventions the association has held. R. N. Mullin of the Calumet Oil Co., of El Paso, Tex., answered critics who charged that the association had done little or nothing by pointing out that it had done much.

Anti-rebate laws, uniform price laws, trade commission laws and inspection laws occupied much of the time of the discussions and finally on motion of J. B. Russ, and the suggestion of President Mullins that the problems were big and important and needed careful study, the whole matter was referred to the board of directors for thorough investigation and later report.

Outside of those matters much of the two days' session was taken up in discussing trade matters such as management of filling stations and general problems for making the business more profitable. President Mullins told of some of the practices of the Calumet Oil Co. of El Paso in making the head of each of its filling stations the proprietor of the establishment and the company's methods in El Paso proved so interesting that the discussion was prolonged against his protests. S. H. Terrell, state comptroller, was on the program to tell how the Texas gasoline tax is computed. His place was taken by O. W. Presnal and E. J. Martin from his office and the whole question of the gasoline tax was discussed and many questions answered.

At the afternoon session, Dr. F. L. Thompson of the Grayburg Oil Co., of San Antonio, talked on the possibilities of the association. M. L. Roark of the Pioneer Oil & Refining Co. of Somerset, and an attorney, discussed the Texas anti-trust laws. J. R. Klumpp of the Grayburg Oil Co., spoke on "Retail Station Management."

Saturday Session

The morning session of Saturday was given over pretty much to an address by J. D. Collett of Fort Worth, Tex., president of the Texas division of the Mid-Continent Oil and Gas Association, on "What Lies Ahead for Texas Independents?" Mr. Collett urged that the value of the association was in the holding up of high trade principles, that the jobber and the middleman's business was largely what he made it and that legislation was a poor remedy for any ills. He urged that members of the association get together and not fight one another and thus advertise their difficulties. As illustration he pointed to the present situation regarding agriculture in Texas. There has been so much bemoaning the cotton situation when the State raised an enormous crop and the price was depressed till the nation has gained the idea that Texas is in a deplorable condition, whereas the State this year, according to Government figures, has raised 108,600,000 bushels of corn, worth $101,000,000, whereas the 1925 crop was only 26,809,000 bushels and worth only $29,490,000. The loss on the cotton crop was only about $35,000,000, whereas the gain on the corn crop is about $70,000,000.

He urged that any movement for new laws such as anti-rebate, uniform price, trade commission, state inspection and the like would only involve the association in political alliances and entanglements that would be disastrous. He urged they unite in fighting any increase in taxation since the industry is already too heavily taxed.

Elect Directors

There was a banquet Friday night in the pink room of the Gunter Hotel tendered by San Antonio oil men. All the meetings of the association were held at the Gunter Hotel. Directors were nominated the first day and elected the second. Out of 20 nominations the association elected the following 13 directors: Mike Millican, of Wichita Falls; W. C. Gayler, of Houston; J. C. Gaither, of Fort Worth; R. N. Mullin, of El Paso; L. A. Greene, of Fort Worth; W. M. Harrison, of Fort Worth; A. B. Slimp, of San Antonio; C. A. Slimp, of San Antonio; J. B. Russ, of Houston; Joe Butz, of Brownsville; H. R. Keller, of Houston; A. T. Butts, of Weslaco; and E. J. Lindeman, of Houston.

The directors elected the following officers: R. N. Mullin, president; W. M. Harrison, first vice president; C. A. Slimp, second vice president; and L. A. Greene, secretary and treasurer.

VISCOSITY OF LUBRICATING OILS TOPIC AT COFFEYVILLE MEETING

COFFEYVILLE, Kans., Nov. 13.—The joint meeting of Oklahoma and Kansas oil jobbers at Coffeyville Friday was attended by 65 dealers from the two states and from Missouri. Modern business methods and viscosity of lubricating oils were the chief topics of discussion, with A. C. Carpenter of Ottawa, president of the Kansas Oil Men's Association, presiding.

J. R. Weldon of Enid, president of the Oklahoma Oil Jobbers' Association, was at the helm at the afternoon meeting, which was featured by an address on "Antiknock Gasoline," by R. H. Gardner, resident chemist at the Sinclair Refining company plant, Coffeyville, and by a general discussion of border problems common to dealers in the three states, led by Dr. C. K. Francis of Tulsa, technical editor, The Oil and Gas Journal.

Following an inspection tour through the Sinclair plant, the visitors returned to the Hotel Dale and topped out the day with a banquet. R. G. Cunningham of Miami acting as the toastmaster. The banquet address was on "Organization," by M. W. Krieger, manager of the Coffeyville Chamber of Commerce.

Value of Co-operation

In an address on "Value of Co-Operation," L. A. Warren of Enid urged the jobbers to modernize their business plans if they have not already done so and help pull the distributing end of the industry out of a rut that is growing deeper year by year.

"We are living in a modern age," Mr. Warren asserted. "We are going so fast that tomorrow is yesterday. The methods of doing business that were considered good one and two years ago are now obsolete and absolutely foreign."

Failures in oil jobbing circles are on the increase, Mr. Warren declared, quoting records to show there were as many failures as successes in 1922 and more failures than successes in 1925.

Remedies suggested were that the jobbers get better acquainted with their men and instill the spirit of co-operation and comradeship, cultivate the principles of salesmanship, keep their fingers more firmly on the pulse of the organization and establish a definite busines policy.

"Co-operation is the biggest asset you ever had; lack of salesmanship your greatest shortcoming," the speaker asserted. He suggested they study the plans which have been mapped by the larger concerns of the country and apply the lessons to their own endeavors.

Mr. Warren censured the slipshod

(Continued on Page 157)

Important Decision Announced in Trade Mark Disagreement

By Charles E. Kern

WASHINGTON, D. C., Nov. 15.—The Sinclair Refining Co. is protected in the use of the word "Sinco" as an exclusive trade mark in the case of that company versus the Schock Independent Oil Co. in an appeal from the decision of the Examiner of Interference to the Commissioner of Patents.

Also the Schock Independent Oil Co. was denied the right of register "Sico" with the patent office because of similarity with the word "Sinco." This carries the exclusive trade mark for the word "Sinco" for petroleum products used as fuels and lubricants.

Assistant Commissioner M. J. Moore states that the Schock Indepnedent Oil Co.'s trade mark "Sico" so closely resembles the trade mark of "Sinco" as to be likely to cause confusion and mistake in the minds of the public and to deceive purchasers. The Schock company declared that the word "Sico" is an abbreviated form of the Schock Independent Oil Co." just as the word "Sinco" is an abbreviated form of the "Sinclair Refining Co."

The Schock company contended that the Sinclair company had abandoned its trade mark, or at least that it had failed to sustain allegations that it has continuously used that mark. However, the commissioner's decision states that "a person may temporarily lay aside his mark, and resume it without having in the meantime lost his property in the right of user." He quoted the case of Madame Irene vs. Schweinburg in which the commissioner said:

"It is well settled that the mere nonuse of a trade mark does not establish abandonment thereto, but that one who contends that the mark has been abandoned must establish that the original owner of the trade mark not only discontinued its use, but intended to abandon same."

The commissioner adds that the evidence in the instant case did not disclose any intention on the part of the opposer to abandon its trade mark. He says that while the witness testified that the mark "Sinco" probably had not been used in the United States for the past three years, and not used at the time of the testimony he would not say it had been abandoned. The decision of the acting examiner of interference sustaining the opposition to the registration of the word "Sico" was correctly affirmed.

COMPLAINT IS FILED BY PACIFIC MARKETERS

LOS ANGELES, Calif., Nov. 13.—Independent service station operators are continuing to fight against the present 3-cent differential allowed them on gasoline. The complaint filed by 50 such operators with the United States attorney's office asserts that representatives of seven of the leading oil companies in California met in Los Angeles during October and afreed to force the independent dealers out of business by decreasing the margin of profit allowed them on motor gasoline. The companies named are the Standard Oil Co. of California, Richfield Oil Co., Shell Co., Associated Oil Co., Union Oil Co., General Petroleum Corp. and California Petroleum Corp. The complaint will have to be forwarded to the attorney general in Washington.

While this step shows the bitter feeling existing, the manner in which prices were cut first by one company and then by another and the attempts to gain public favor while making price reductions indicates clearly there was no collusion whatsoever.

CASINGHEAD IN CRUDE IN REPARATION AWARD

WASHINGTON, D. C., Nov. 13.—Shipments from Beatyville, Ky., to Findlay and Toledo, Ohio, and Petrolia, Ont., have been found to have consisted of crude oil, and reparation is awarded to the National Refining Co. from Louisville against Nashville Railroad Co. to the extent that the charges collected exceeded those that would have accrued at the crude oil rates. This case involves the blending of casinghead gasoline with crude oil, resulting in a traffic question which has been brought to the attention of the commission in other cases.

The shipments aggregated 3,021 carloads with an average weight of about 55,000 pounds. The commission on July 18, 1922, ruled informally that these shipments should have been billed as gasoline and the remaining shipments were billed accordingly. This ruling has brought forward a rather curious statement.

The complainant desired to purchase crude oil, but preferred not to take the casinghead gasoline. At the time, however, the producer had no other outlet for its production of the latter commodity and insisted that if complainant took the oil it should also take the casinghead gasoline, and complainant agreed. Since these shipments moved the producer has made other arrangements for the separate disposition of its casinghead gasoline so that it is not now mixed with the crude.

To indicate the proportion of casinghead gasoline, complainant shows that during 1921, out of the total of 305,000 bbls. of oil purchased or produced, for storage in the tank at Beattyville, 6.64 per cent was casinghead gasoline. The lowest percentage for any month during that year was 5.22 and the highest 8.47. Where there is opportunity to dispose of casinghead gasoline separately it commands a higher price than crude oil, but here the casinghead gasoline was purchased and sold at the prevailing crude oil prices and the crude oil with which it was mixed was not segregated or treated differently from any other crude.

MOVES SALES HEAD TO CHICAGO

CHICAGO, Nov. 13.—The Fred G. Clark Co., well known oil men of Cleveland, Ohio, will remove their sales headquarters to this city. These offices will be at the present offices here 1031 West Thirty-seventh Street, and will be managed by Vice President John W. McNerney. Bruce Beyer will continue as manager of the Chicago sales and plant operation. The Cleveland office will be continued as a district sales office having Ohio and western New York and Pennsylvania for its territory.

ASK RED SEAL RECEIVERSHIP

OKLAHOMA CITY, Okla., Nov. 15.—State Auditor C. C. Childers, through the attorney general, has applied for appointment of a receiver for the Red Seal Refining Co., of Oklahoma City, based on the company's delinquency in the payment of $14,394 in gasoline taxes due the State. The Red Seal company is said to have disposed of part of its filling stations and other properties in June.

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Technical Questions Answered

BY CHARLES K. FRANCIS, PH.D., TECHNICAL EDITOR

The Question and Answer Department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry. Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, and all those engaged in the various phases of plant operation; also those connected with the marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

All inquiries should be signed and if other than the given initials are to be used please indicate the desired letters.

Questions involving patented processes, intricate formulas and calculations and estimates of costs, for obvious reasons, cannot be answered. The replies will appear on this page within a reasonable time.

CARBON FORMATION IN CRACKING TUBES

Is the external heat application to a tube such as in a cracking unit supposed to increase the tendency to collect carbon on its inner surface, and is the carbon deposited principally on the top, bottom, or sides of the horizontal tubes? —E. G. S.

Every effort is made to prevent the deposition of carbon in the tubes. The formation of carbon seems to be related to the kind of oil charged, the temperature to which it is exposed, the size of the tubes and the velocity of the oil passing through the tubes.

Under normal operating conditions, and when there is an equal distribution of the heat, carbon is deposited quite uniformly around the tubes. Sometimes the heating unit may contain headers, returns or other elements parts of which are at somewhat lower temperatures than the rest of the apparatus, and under such conditions of unequal temperatures the carbon will frequently collect on or in the cooler part.

AMMONIA SOLUBILITY AND WEIGHT

Is there any difference between anhydrous ammonia and ammonia gas? How much ammonia gas will dissolve in water? Will you give me the weight of anhydrous ammonia at several different gauge pressures?—P. E. A.

The common form for handling ammonia in many industries is in the water solution of the gas. This is known as ammonia water, ammonium hydrate and ammonium hydroxide. The active part of the solution is the ammonia gas, which is composed of nitrogen and hydrogen, NH_3. The meaning of the word anhydrous is without water, so then ammonia gas and anhydrous ammonia are the same.

Ammonia is very soluble in water; one volume of water will dissolve 1,148 volumes of the gas when the temperature is at the freezing point, 32 degrees Fahrenheit. At 122 degrees Fahrenheit water will dissolve 306 volumes of ammonia. The commercial solution, known as concentrated ammonia, having a specific gravity of 0.882, contains 35 per cent of the ammonia gas. In the oil industry ammonia is usually purchased as anhydrous ammonia in cylinders for use in refrigeration or as a neutralizing agent.

The weight of anhydrous ammonia at different gauge pressures follow:

Pressure—	Weight of 1 cu. ft. Pounds
0	0.0566
10	0.0941
30	0.1611
50	0.2292
70	0.2965
90	0.3617
100	0.3939
125	0.4766
150	0.5566
175	0.6340
200	0.7188

FULLERS EARTH

Can you please inform me concerning the composition of fullers earth? What elements do scientists believe cause it to bleach oil? Where is it found and in what geological formations?—V. W.

Fullers earth is so named because it was formerly used for fulling, that is, the removal of grease from wool. It is a definite kind of clay which has the property of adsorbing the coloring matter from many different liquids and especially from vegetable, animal and mineral oils.

There are several theories advanced for the purpose of explaining the action of fullers earth, among which the following are often mentioned. Decolorization of oils by fullers earth is thought to be a physical and not a chemical process. The bleaching property seems to be influenced by mechanical condition of the clay and to the quantity of water that may be combined with the silica. Bleaching is due to the presence of colloidal silica. The loss of color is brought about through polymerization of unsaturated compounds.

Fullers earth is found in many parts of the world and is quite widely distributed in the United States. There are deposits in Florida, Georgia, Texas, Illinois, California, South Dakota, New York and other states. The most important deposit is that which has been worked for many years in Florida. With very few exceptions fullers earth is found as a sedimentary deposit in very much the same way that all clay beds are laid down.

The analysis is that of a Florida fullers earth:

Silica	60.80 per cent
Alumina	15.45 per cent
Iron oxide	1.95 per cent
Lime	1.60 per cent
Magnesia	3.12 per cent
Water	9.90 per cent
Moisture	6.48 per cent
Not determined	.70 per cent

CORROSION RESISTING METALS

Is any progress being made in the way of supplying condenser and other material in some kind of metal which will stand up against corrosion?—R. L. L.

There are a number of special irons and alloys which are known to resist the action of acids and sulphur to a greater degree than ordinary iron. The higher cost of these has been the reason why they have not come into more extensive use. The initial expense often appears prohibitive but if an accurate accounting were made indicating time down, labor and replacement expense there is little doubt that a higher first cost would show a saving when the special metal had been used. Exchangers constructed of special brass and bronze are meeting with success under many conditions and some of the iron alloys are good. With greater demand no doubt the price will become lower.

The following notes from the October issue of Chemical and Metallurgical Engineering on a number of old and new materials of construction have had their origin in the reported experiences of various refineries. For the most part they refer to the specific conditions under which they were tested rather than to general applications; gray cast iron is extensively used in many refineries for bubble tower trays and caps. Closeness of grain is necessary and inclusions of foreign materials should be guarded against; copper-bearing iron and steel plates have proved unsatisfactory for oil-vapor exposure, but they have given better results on atmospheric exposure than standard steel plates. Copper-bearing, cast-iron pipes were found by one refiner to give 30 to 50 per cent greater life than ordinary cast iron; high chromium alloy-pyrometer protection tubes made of high chromium alloy were found in one instance to be in good condition after 10 months of severe service in which steel protection tubes lasted only from four to six months; one refinery has found that copper-aluminum-iron alloy appears to be as good as cast iron or possibly better for resisting condenser box corrosion. Still plugs and bushings and pyrometer protection wells made of the same alloy have been used in refineries handling Mexican and other high-sulphur crude oils; hard stainless steel has shown excellent resistance to high temperatures and excessive mechanical wear in cracking units; duriron pumps, valves, pipes and in fact all acid and alkali equipment in the treating plant may be made of duriron; zinc coating, either by galvanizing or by sherardizing (formed by heating base metal in vapors of zinc) is properly used to resist atmospheric corrosion; still plugs of monel metal give satisfactory resistance to corrosion and erosion. Bolts made of monel metal are used in condenser coils and give excellent service.

KINDS OF DISTILLATION

Are the principles of distillation the same when operating a crude still and when operating a pressure still?—N.R.B.

In the main the essential idea of producing a vapor which is condensed is the same but the conditions are not. Distillation as applied to the refining of petroleum, may be divided into two kinds. These frequently blend one into the other and are known as fractional distillation and destructive distillation.

Fractional distillation more properly may be used in connection with the separation of the primary products from crude oil. As the oil is heated in the still a series of products will be obtained with each increase of temperature after the liquid begins to boil, and as the boiling point varies with the crude, also will the nature of the products obtained vary both in quantity and quality. The first few drops of the condensed liquid obtained from the average crude consist of a very volatile and light gasoline which becomes less volatile and heavier in weight as the temperature is raised. Therefore, the products are obtained in portions or fractions, hence, fractional distillation. The very first fractions may be returned to the ordinary crude without altering its properties.

As the process of fractional distillation advances the portions obtained at the higher temperatures differ so much from the first ones that they must be set aside into another division or group, this is known as a cut. In this manner, with continued heating and always increasing temperature, the liquids called gasoline, naphtha, kerosene, gas oil, etc., are obtained.

One of these products, gas oil, has definite physical and chemical properties by which it may be identified. It contains certain quantities of hydrogen and carbon but it is not volatile, contains no gasoline and is not suitable for use as a motor fuel. However, when gas oil is treated in a pressure still it has been found that under the conditions of elevated temperature and increased pressure, the structure of the gas oil is broken down and the hydrogen and carbon atoms are rearranged with the result that some gasoline is formed. This is a form of destructive distillation commonly known as cracking. The final separation of the cracked gasoline from the rest of the material would involve the use of fractional distillation.

PREDILUTION OF LUBRICATING OIL

The desirable qualities of a lubricating oil are supposed to be the product of the refiner and subject to the kind of crude oil delivered to the refinery. Will not the proposed dilution of the lubricating oil with naphtha or kerosene destroy the real value of the lubricant?—R. C. D.

Viscosity, or thickness, of a lubricating oil for use in motor vehicles is the quality by which its lubricating ability usually is measured, and the seriousness of excessive dilution of oil in the crankcase by the unburned heavy ends of the gasoline fuel is due chiefly to the reduction of viscosity. A series of tests made at the United States Bureau of Standards and reported by S. A. McKee, assistant mechanical engineer of the bureau, in the October number of the Journal of the Society of Automobile Engineers, indicates that dilution also has an effect on the oiliness of the lubricant, and that under certain conditions of operation of the engine this may result in increased friction and wear of the piston rings and cylinder walls.

Oiliness is defined as the property that causes a difference in friction when two lubricants of the same viscosity at the temperature of the oil film are used under identical conditions. The test runs were made with two especially prepared journal bearings in a friction machine. In the first series a light mineral motor oil was used as a basis of comparison; in the second a blend of 64.25 per cent of cylinder oil and 35.75 per cent of kerosene was used, and in another series the lubricant was a light mineral oil to which 2 per cent of oleic acid was added. These samples were chosen because their viscosities were very nearly the same at the temperature of operation. In the last test series blends of spindle stock and cylinder stock from the same crude oil were employed, and 10, 20 and 30 per cent of kerosene was added to the different blends to produce equal viscosity in the samples.

Results of the tests showed that under normal conditions of bearing speed and load on the bearing, all of the oils and the blends with kerosene showed practically identical friction, but at low speed and high load the oils containing kerosene developed rapidly increasing friction sooner than the others as the load was increased and the speed decreased. The light mineral oil to which 2 per cent of oleic acid was added gave much better results in subnormal operation than the same oil blended with 35.75 per cent of kerosene. This indicates that the addition of kerosene to lubricating oil causes the oil film on bearing surfaces to break down under less severe operating conditions than when straight mineral oil is used and that the kerosene decreases the oiliness effect.

If used crankcase oils suffer such a decrease in oiliness, concludes Mr. McKee, it is reasonable to expect that at least during some periods of operation the piston rings are operating in a region of unstable lubrication where a decrease in oiliness may have an appreciable effect on frictional loss and wear. There probably are times, also, as when starting or stopping the engine, during which the oil film on the bearings is not complete and undue wear results.

Fuel of Higher Heat Value Than Anthracite

Fernholtz Briquettes are a cleaner fuel, they combust ideally, giving no obnoxious odor, and have practically no ash content. They are easier to handle than coal and will not disintegrate in storage.

Wherever introduced they are easily marketed at prices that are consistent with their fuel value.

Refineries using a modern cracking process are thus able to convert their waste oil-coke residue into attractive profit by Briquetting.

The cost of installing a Briquetting Plant is very nominal when considering the profit that can be derived from its operation.

Porter & Company, Inc.
Briquetting Engineers
718 Board of Trade Bldg., Los Angeles, Calif.

Fernholtz Briquetting Process

Brief Items for Plant Operators

TWO MORE REFINERIES USE PANHANDLE CRUDE

Two more Mid-Continent refiners have completed arrangements to use Panhandle, Tex., crude at their refineries, according to announcements made during the past week. The Bolene Refining Co. starting this week will operate exclusively on Panhandle crude and the American Refining Co. will use part Panhandle crude at its Wichita Falls, Tex. refinery.

The continued decline in the gasoline market with no changes in the posted crude prices by the Prairie Oil & Gas Co. and several other major buyers has caused many refiners with plants in Oklahoma, Kansas and north Texas to consider the purchase of the Panhandle crude. This is especially true of the plants situated in the high gravity pools. The Bolene Refining Co. has been operating with a 43 gravity crude from the Tonkawa area.

The posted price on most of the Panhandle crude is now $1.25 per barrel regardless of gravity. Some crude purchased in quantities has been available under the posted price. The gravity of the crude delivered in tank cars runs as high as 38. The freight rate to Kansas and Oklahoma points is between 35 and 50 cents per barrel. This gives a delivered price at the refineries of from 25 to 75 cents a barrel under the present postings for Oklahoma and Kansas crude plus pipeline charge to the wells for the same gravity crude.

The Panhandle crude is more expensive to refine due to corrosion troubles and difficulties in treating. However, most refiners do not expect to have any special trouble with the crude after they have used it a short time and are confident that the difference in price will more than offset the extra refining costs.

The American Refining Co. and individuals associated with the company have considerable production in Carson County of the Panhandle area with a large amount in storage. The company expects to simplify the refining problem in handling the crude by mixing it with crude obtained from the Wichita and Archer County Fields.

BATON ROUGE PLANT TO START USING GAS

The Baton Rouge, La., refinery of the Standard Oil Co. of Louisiana will start using gas as fuel in place of oil the first of the year, according to The Lamp, official publication of the Standard Oil Co. of New Jersey. The 170-mile line which the Interstate Natural Gas Co., Inc., is building connecting the plant with the Monroe gas field in northern Louisiana, will be completed in about six weeks.

The line is 22-inch and will have a capacity of 100,000,000 feet of gas daily. Gas in excess of refinery requirements will be sold to other industries located near the line and in the city of Baton Rouge. The company building the line is owned by the Standard company and the Southern Carbon Co. The latter company is the largest gas producer in the Monroe Field and had contracted with the Standard company to furnish 40,000,000 feet of gas daily.

The Baton Rouge refinery at present is consuming approximately 10,000 bbls. of fuel oil daily.

DR. N. A. STEPHENS DIES

Dr. Nicholas Alexander Stephens, connected with the chemical research department of the Marland Refining Co., died Saturady, November 13, at his home in Ponca City, Okla. Doctor Stephens, previous to his connection with the Marland organization, lived in Russia, where he was widely known in scientific circles.

AVIATION ENGINES REQUIRE MOTOR FUEL OF EXACTING SPECIFICATIONS

By H. M. Mullinnix*
Lieutenant Commander, U. S. Navy

Attention of the automotive world has been concentrated in recent months on the possibility of achieving increased performance and economy through changes in engine design, particularly in the employment of higher compression ratios. Within limits the improvement may be effected by improved construction of the engine itself, but to attain the maximum results it is necessary to use special fuels in place of the current standard automobile gasoline. The aeronautical engineers have been confronted with a similar problem for many years and have obtained results which may be considered extraordinary in comparison with the average performance of automotive power plants. These results are being translated into other fields with benefit to all concerned.

Within limits the thermal efficiency and brake mean effective pressure, hence the power output per pound of engine weight and per pound of fuel, depend upon the compression ratio. Granted fundamentally sound engine construction, the maximum useful compression ratio is limited by the fuel. There are two lines of thought in the matter of fuel development, the production of improved blends of pure hydrocarbons, and the employment of special antiknock agencies or dopes. Considerable progress is being made along each line.

The current federal specifications for motor fuels make little or no provision for determining the suitability of a fuel for use in engines of high compression ratio. This lack has led to determined research in the effort to devise improved testing methods and revised specifications which adequately determine the desirable or undesirable characteristics of a motor fuel. Examples of these tests are the "critical temperature of a solution with aniline" tests indicating the percentage of hydrocarbons of other than the paraffin series, and various pressure bomb and engine tests designed to determine the antiknock value of a fuel.

*Power Plant Section, Bureau of Aeronautics.

Antiknock Properties

A satisfactory aviation engine fuel must have antiknock properties which permit operation at full throttle at sea-level in existing engines. Engines are built to operate at the highest compression ratios permitted by the available fuels. Any advance by fuel manufacturers is immediately seized upon by engine manufacturers so that the demand is ever for better and better fuels.

In addition to the antiknock value, a fuel to be suitable for aviation engine must meet other requirements which are more or less covered by current Federal specifications. The distillation range of the fuel is important since the fuel must be sufficiently volatile to permit easy starting in cold weather and practically complete vaporization before entering the engine cylinders. These requirements upon which smooth and economical operation depends are well understood.

Importance of Odor

The color of a fuel for aviation engines is not important except in so far

(Continued on Page 157)

NEW JERSEY COMPANY CHANGES IN PERSONNEL

The Standard Oil Co. of New Jersey has recently made several changes in personnel at its several refineries and allied plants. These changes are due to promotions and retirements.

C. A. Chuman has been appointed manager of the Bergenport Chemical Works and the Bayway Acid Works. W. C. Koehler, formerly manager of the Bayonne, N. J., works, has been made vice chairman of the manufacturing committee He will also serve as manager of the Havana, Cuba, refinery.

T. R. Parker, formerly general manager of the Bayway Works, will have his headquarters abroad and act as advisor to the European refineries. F. W. Abrams, general manager of the Eagle Works, will also serve in the same capacity at Bayonne and Bayway.

George W. Gordon has been made manager of the Campana refinery in the Argentine and the Palembang and Kapoean refineries of the Dutch West Indies. J. R. Carringer is now local manager of the Bayway Works, W. W. Gamble, local manager of the Eagle Works and C. O. Meyer has been promoted from assistant to local manager at Bayonne.

Other changes announced by the company include:

Bayway: M. R. Meacham, general superintendent; W. F. Thiede, assistant superintendent in charge of oil movement and atmospheric distillations; M. D. Mann, Jr., assistant superintendent in charge of specialty process; A. Tomlinson, assistant superintendent in charge of pressure distillation.

Eagle Works: W. A. Eberle, superintendent; F. W. Fox, assistant superintendent in charge of distillation, paraffin, steam and cooperage departments; M. B. Kopkins, assistant superintendent in charge of filtering, cold settling, treating department and works' laboratories.

Bayonne: C. F. Smith continues as general superintendent; N. H. Place, assistant superintendent, in charge of shipping; C. L. Waite, assistant superintendent in charge of power department and pressure distillation; Dr. C. E. Lanning, assistant superintendent in charge of general processing.

AMONG THE TECHNICAL MEN

On this page is a discussion of the motor fuel problem as it applies to aviation engines by Lieutenant Commander Henry Maston Mullinnix, U. S. Navy. Lieutenant Commander Maston was recently assigned to the Power Plant Section of the Bureau of Aeronautics and in the future will be closely associated with many oil companies in solving the problems of lubrication and motor fuel peculiar to aviation engines.

—Harris & Ewing.
Henry Maston Mullinnix

Mr. Mullinnix was born in 1892. He graduated from the U. S. Naval Academy in 1916, having previously been graduated from the Attica, Indiana, High School in 1909, after which he attended Purdue University in 1911.

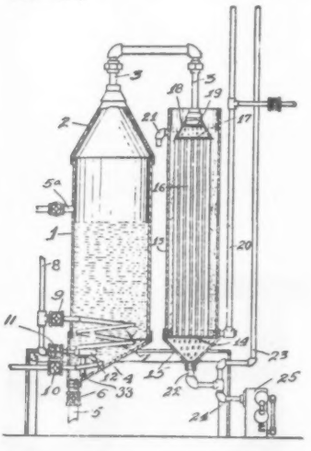
He served in various capacities on U. S. destroyers, 1916 to 1921, and completed a postgraduate course of instruction with Master of Science in Aeronautical Engineering at Massachusetts Institute of Technology, 1923. He was qualified as naval aviator December, 1923, and June, 1924, he was attached to the Bureau of Aeronautics on duty in the engine section of the material division in which capacity his attention has been particularly drawn to fuel for airplanes.

His home is at Attica, Ind.

Recent Patents

(Additional Patents on Page 164)

1,604,353. Distilling Apparatus for Volatile Liquids. Henry A. Hills, Grand Rapids, Mich. Filed January 14, 1921. Serial No. 437,136. Two claims. (Cl. 196—15.)



1. In a still for purifying cleansing liquids, a nozzle horizontally disposed adjacent the bottom of the still adapted to inject steam into the liquid therein, a sleeve surrounding said nozzle and spaced therefrom to provide an annular chamber therearound, a pipe attached to the rear of said chamber and extending to the bottom of the still, for supplying fluid through the chamber simultaneously with the exhaust from the nozzle, and means for deflecting said injected steam and fluid upward.

A Perfect Vacuum....

scientists tell us, can never be attained, but you can obtain perfect control of the vacuum you need for economic operation by using FISHER vacuum regulators.

These regulators are suitable for service on gas, oil, water, steam or in any service where an accurate vacuum must be maintained.

Type 86 is self-contained, without a lever or dashpot and, by eliminating the stuffing box, a sensitive bellows diaphragm, made of phosphor bronze, insures positive control in any kind of service. Type 88 has a lever and weight actuating a diaphragm that is highly recommended for installations on horizontal lines. Either type of FISHER vacuum regulators assures you of perfect control of the vacuum in any kind of service.

Illustration No. 1—FISHER vacuum regulator Type 88, shown maintaining a reduced vacuum in a 6" pipe line, drawing gasoline vapors from storage tanks.

Illustration No. 2—FISHER vacuum regulator Type 88, shown maintaining a vacuum of 11" in a pipe line.

Illustration No. 3—FISHER ultra-sensitive vacuum regulator Type 86, shown holding vacuum of 5" on an oil and gas well.

Write for our bulletin No. 40 on "Vacuum Regulators."

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THE FISHER GOVERNOR COMPANY

386 FISHER BUILDING
MARSHALLTOWN, IOWA

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

GASOLINE AND NAPHTHA

	Nov. 16		Nov. 9		Nov. 2	
OKLAHOMA (Group 3)—						
50-52 450 end point (Naphtha)	.09		.09⅛	.09⅜	.09⅜	.09⅝
56-58 450 end point	.08¾	.08⅞	.08⅞	.09	.09¼	
58-60 450 end point	.08⅞	.09	.09		.09¼	.09⅜
58-60 437 end point (U. S. Motor)	.09		.09	.09½	.09½	.09¾
60-62 400 end point	.10⅛	.10¼	.10	.10¼	.10½	
64-66 375 end point	.10½	.10¾	.10½	.10¾	.10¾	.11
68-70 360 end point	.11¼	.11½	.11¼	.11½	.11½	.11¾
KANSAS—						
58-60 437 end point (U. S. Motor)	.09½	.09⅝	.09½	.09¾	.09¾	.10
NORTH TEXAS—						
48-50 450 end point (Naphtha)	.08¾	.09	.09	.09¼	.09¼	.09½
50-52 450 end point (Naphtha)	.08¾	.09	.09⅛	.09¼	.09¼	.09½
56-58 450 end point	.08¾	.08⅞	.08¾	.09	.09⅛	.09¼
58-60 437 end point (U. S. Motor)	.08⅞	.09	.09	.09¼	.09½	.09¾
60-62 400 end point	.10⅛	.10¼	.10	.10⅛	.10⅜	.10½
64-66 390 end point	.10¼	.10⅜	.10⅛	.10¼	.10⅝	.10¾
64-66 375 end point	.10⅜	.10½	.10¼	.10½	.10¾	
68-70 360 end point	.11¼	.11⅜	.11¼		.11⅜	.11⅝
NORTH LOUISIANA—						
58-60 437 end point (U. S. Motor)	.09	.09¼	.09¼	.09½	.09½	.09¾
ARKANSAS—						
58-60 437 end point (U. S. Motor)	.09⅛	.09¼	.09¼	.09½	.09¾	.10
ROCKY MOUNTAIN STATES—						
*58-60 437 end point (U. S. Motor)	.12	.12⅛	.12	.12½	.12½	.12¾
PENNSYLVANIA—						
52 Naphtha	.11½	.11¾	.11½	.11¾	.11½	.11¾
54 Naphtha	.11½	.11¾	.11½	.11¾	.11½	.11¾
56 Gasoline	.11⅝	.11¾	.11⅝	.11¾	.11¾	.12
58 Gasoline	.11¾	.12	.11¾	.12	.12	.12¼
60 Gasoline	.12½	.12¾	.12½	.12¾	.12¾	.13
62 Gasoline	.13	.13¼	.13	.13¼	.13¾	.14
64 Gasoline	.13¼	.13½	.13¼	.13½	.14	.14¼
66 Gasoline	.15¼	.15½	.15¼	.15½	.15¼	.15½
68-70 Gasoline	.17¼	.17½	.17¼	.17½	.17¼	.17½
CALIFORNIA—						
54-58 437 end point (U. S. Motor) domestic	.09¼	.09½	.09¼	.09½	.09½	.10
CHICAGO DISTRICT (Based on Group 3)—						
50-52 450 end point (Naphtha)	.09		.09¼	.09½	.09½	.09⅝
56-58 450 end point	.09	.09⅛	.09	.09¼	.09¼	.09⅜
58-60 437 end point (U. S. Motor)	.09	.09⅜	.09½		.09½	.09¾
60-62 400 end point	.10	.10¼	.10¼	.10½	.10½	.10¾
64-66 375 end point	.10½	.10¾	.10¾	.11	.10¾	.11⅛
68-70 360 end point	.11½		.11½		.11½	.11¾

*Colorado points.

NATURAL GASOLINE

	Nov. 16		Nov. 9		Nov. 2	
OKLAHOMA (Group 3)—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.09¼	.09⅝	.09¼	.09⅝	.09	.09¼
Grade A, 72-79.9, 375 e.p., rec. 90%	.09¼	.09½	.09¼	.09½	.09¼	
Grade BB, 84-92, 375 e.p., rec. 85%	.08¾	.09	.08¾	.09	.08⅝	.08¾
Grade B, 76-83.9, 375 e.p., rec. 85%	.08¾	.09	.08¾	.09¼	.08⅝	.08¾
Grade C, 80-90, 375 e.p., rec. 78%	.08⅝	.08¾	.08⅝	.08¾	.08⅜	.08½
NORTH TEXAS—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.09¼	.09½	.09¼	.09½	.09	.09¼
Grade A, 72-79.9, 375 e.p., rec. 90%	.09¼	.09½	.09¼	.09½	.09¼	
Grade BB, 84-92, 375 e.p., rec. 85%	.08¾	.09	.08¾	.09	.08¾	
Grade B, 76-83.9, 375 e.p., rec. 85%	.08¾	.09	.08¾	.09	.08¾	
Grade C, 80-90, 375 e.p., rec. 78%	.08⅝	.08¾	.08⅝	.08¾	.08⅜	.08½
NORTH LOUISIANA—						
Grade A, 72-79, 375 e.p., rec. 90%	.09¾	.10	.09⅞	.10	.09⅝	.09¾
Grade B, 76-83.9, 375 e.p., rec. 85%	.09½	.09¾	.09¾	.09⅞	.09⅝	.09⅝
Grade C, 80-90, 375 e.p., rec. 78%	.09⅜		.09½	.09¾	.09¼	.09⅜
CALIFORNIA—						
75-85, 375-390 end point	.11½	.12	.11½	.12	.11½	.12
CHICAGO DISTRICT (Based on Group 3)—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.09⅛	.09⅜	.09	.09⅜	.09	.09¼
Grade A, 72-79.9, 375 e.p., rec. 90%	.09⅛	.09⅜	.09	.09⅜	.09	.09¼
Grade BB, 84-92, 375 e.p., rec. 85%	.08½	.08¾	.08½	.08¾	.08½	.08¾
Grade B, 76-83.9, 375 e.p., rec. 85%	.08½	.08¾	.08½	.08¾	.08½	.08¾
Grade C, 80-90, 375 e.p., rec. 78%	.08¼	.08½	.08¼	.08⅜	.08⅜	.08½

MOTOR NATURAL GASOLINE

	Nov. 16		Nov. 9		Nov. 2	
OKLAHOMA (Group 3)—						
60-62 450 end point	.09		.09¼		.09¼	.09½
64-66 437 end point	.09		.09¼		.09½	
NORTH TEXAS—						
64-66 437 end point	.08⅞	.09	.09⅛	.09¼	.09⅜	.09½
PENNSYLVANIA—						
*60-62	.12	.12¼	.12¼	.12½	.12¼	.12½
*64-66	.12	.12¼	.12¼	.12½	.12¼	.12½
*66-68	.12¼	.12½	.12¼	.12½	.12¼	.12½
*68-70	.12¼	.12½	.12¼	.12½	.12¼	.12½
CHICAGO DISTRICT (Based on Group 3)—						
60-62 450 end point	.09	.09⅛	.09¼		.09⅜	.09½
64-66 437 end point	.09¼	.09⅜	.09¼	.09½	.09½	.09⅝

*At Sistersville, W. Va.

BURNING OIL

	Nov. 16		Nov. 9		Nov. 2	
KANSAS—						
41-43 water white Kerosene	.07	.07¼	.07	.07¼	.07¼	.07⅝
OKLAHOMA (Group 3)—						
41-43 water white Kerosene	.06½	.06¾	.06½	.06¾	.06¾	.06⅞
42-44 water white Kerosene	.06⅞	.07	.06⅞	.07	.07	.07¼
NORTH LOUISIANA—						
41-43 prime white Kerosene	.07	.07¼	.07	.07¼	.07¼	.07½
ROCKY MOUNTAIN STATES—						
*40-41 water white Kerosene	.09½	.09¾	.09½	.09¾	.09¾	.10
NORTH TEXAS—						
41-43 water white Kerosene	.06¼	.06½	.06½		.06¾	
ARKANSAS—						
41-43 water white Kerosene	.07	.07¼	.07	.07¼	.07¼	.07½
PENNSYLVANIA—						
43 Kerosene prime white	.08	.08¼	.08¼	.08½	.08¼	.08½
45 Kerosene water white	.08¼	.08½	.08½	.08¾	.08½	.08¾
46 Kerosene water white	.09	.09¼	.09	.09¼	.09	.09¼
47 Kerosene water white	.09½	.09⅝	.09½	.09¾	.09½	.09¾
34 Neutral	.07½	.07¾	.07½	.07¾	.07½	.07¾
34 Sundebloom Neutral	.08½	.08¾	.08½	.08¾	.08½	.08¾
36 Miners' Neutral	.07¼	.07½	.07¼	.07½	.07¼	.07½
30 Mineral Seal	.08¾	.09	.08½	.08⅝	.08½	.08⅝
CALIFORNIA—						
38-40 water white (high burning test)	.07	.07½	.07	.07½	.07	.07½
Engine distillate, 43-45 445 end point	.07¾	.08	.07¾	.08	.07¾	.08
Engine distillate, 42-44 480 end point	.07¼	.07½	.07¼	.07½	.07¼	.07½
CHICAGO DISTRICT (Based on Group 3)—						
41-43 water white Kerosene	.06½	.06¾	.06⅝	.06⅞	.06¾	.06⅞
42-44 water white Kerosene	.07	.07¼	.07¼	.07½	.07⅛	.07¼

*Colorado points.

FUEL OILS

	Nov. 16		Nov. 9		Nov. 2	
KANSAS—						
24-26 Fuel Oil	1.35	1.40	1.35	1.40	1.35	1.40
32-36 Gas Oil	.04½	.04⅝	.04½	.04⅝	.04½	.04⅝
38-40 Distillate	.05½	.05¾	.05½	.05¾	.05½	.05¾
OKLAHOMA (Group 3)—						
Below 22 Fuel Oil (sellers' cars)	1.20	1.25	1.20	1.25	1.20	1.27½
22-26 Fuel Oil (sellers' cars)	1.25		1.25	1.27½	1.27½	1.30
24-26 Fuel Oil (sellers' cars)	1.27½	1.32½	1.27½	1.32½	1.35	
26-30 Fuel Oil (sellers' cars)	1.35		1.35	1.40	1.37½	1.42½
28-30 Fuel Oil (sellers' cars)	1.47½	1.50	1.50		1.50	1.52½
32-36 Gas Oil (dark)	.04⅛	.04¼	.04⅛	.04¼	.04¼	.04¼
32-36 Gas Oil (cracking stock)	.04¼	.04⅜	.04¼	.04⅜	.04¼	.04⅜
36-38 Distillate	.04¼	.05⅛	.04⅞	.05	.05¼	.05½
38-40 Straw Distillate	.05⅛	.05⅜	.05	.05⅜	.05½	.05¾
NORTH TEXAS—						
24-26 Fuel Oil (sellers' cars)	1.47½	1.52½	1.50	1.60	1.50	1.60
32-36 Gas Oil (straw)	.04	.04¼	.04	.04¼	.04	.04¼
38-40 Straw Distillate	.04⅞	.05	.04⅞	.05	.05⅜	.05⅝
NORTH LOUISIANA—						
18-20 Fuel Oil	1.20		1.20		1.20	1.25
32-36 Gas Oil (straw)	.04½	.04¾	.04¾	.04½	.04¼	.04½
32-36 Gas Oil (dark)	.04⅞	.04⅞	.04⅞	.04⅞	.04	.04¼
36-38 Distillate	.05	.05¼	.05	.05¼	.05	.05¼
ARKANSAS—						
38-40 Distillate	.05¼	.05⅝	.05¼	.05⅝	.05½	.05¾
32-36 Gas Oil (straw)	.04¼		.04¼		.04¼	
16-20 Refinery Fuel Oil	1.20	1.25	1.20	1.25	1.22½	1.25
GULF COAST (South Texas)—						
Gas Oil	.05½	.05⅝	.05½	.05⅝	.05½	.05⅝
Fuel Oil	1.75	1.85	1.75	1.85	1.75	1.85
PENNSYLVANIA—						
30-34 Fuel Oil	.06¼	.06½	.06¼	.06½	.06	.06¼
36-40 Fuel Oil	.06½	.06¾	.06½	.06¾	.06½	.06¾
CALIFORNIA—						
33-36 Distillate	.04	.04¾	.04	.04¾	.04	.04¾
27-32 Distillate	.03½	.04	.03½	.04	.03½	.04
15-20 Fuel Oil, Bunkers (at tide water)	.92½	1.04	.92½	1.04	.92½	1.04
27 plus Diesel	1.15	1.19	1.15	1.19	1.15	1.19
CHICAGO DISTRICT (Based on Group 3)—						
24-26 Fuel Oil (sellers' cars) Group 3	1.30	1.35	1.32½	1.35	1.32½	1.35
22-26 Fuel Oil (sellers' cars) Group 3	1.30	1.32½	1.30	1.35	1.30	1.32½
18-22 (Group 3)	1.22½	1.27½	1.22½	1.27½	1.22½	1.27
18-20 (Smackover)	1.25	1.30	1.25	1.30	1.27½	1.30
32-36 Gas Oil	.04¼	.04⅜	.04⅛	.04¼	.04⅛	.04¼
36-38 Distillate	.05⅛	.05¼	.05¼	.05½	.05⅜	.05½
38-40 Straw Distillate	.05¼	.05⅜	.05½	.05¾	.05⅝	.05⅞

LUBRICATING OILS AND WAX

	Nov. 16		Nov. 9		Nov. 2	
OKLAHOMA (Group 3)—						
70-80 vis., 2½ color, 20-25 cold test	.06	.06¼	.06	.06¼	.06	.06¼
100 vis., 2 color, 20-25 cold test	.06¾	.07	.06¾	.07	.06¾	.07
100 vis., 3 color, 20-25 cold test	.06½	.07	.06½	.07	.06½	.07
150 vis., 3 color, 20-25 cold test	.09½	.10	.09½	.10	.09½	.10
150 vis., 4 color, 20-25 cold test	.09¾		.09¾		.09¾	
180 vis., 3 color, 23-28 cold test	.10½	.11½	.10½	.11½	.10½	.11½
180 vis., 4 color, 23-28 cold test	.10	.10½	.10	.10½	.10	.10½
200 vis., 3 color, 23-28 cold test	.10¾	.12¼	.10¾	.12¼	.10¾	.12¼
200 vis., 4 color, 23-28 cold test	.11¼	.11½	.11¼	.11½	.11¼	.11½
220 vis., 3 color, 25-30 cold test	.13	.13½	.13	.13½	.13	.13½
220 vis., 3 color, 25-30 cold test	.13		.13		1.3	
240 vis., 3 color, 25-30 cold test	.14	.15	.14	.15	.14	.15
240 vis., 4 color, 25-30 cold test	.14	.14½	.14	.14½	.14	.14½
280 vis., 3 color, 25-30 cold test	.16	.17	.16	.17	.16	.17
280 vis., 4 color, 25-30 cold test	.15½	.16½	.15½	.16½	.15½	.16½
180 vis., 5 color, 23-28 cold test	.09¾	.10¼	.09¾	.10¼	.09¾	.10¼
200 vis., 5 color, 23-28 cold test	.10	.11¼	.10	.11¼	.10	.11¼
220 vis., 5 color, 25-30 cold test	.12	.12¼	.12	.12¼	.12	.12¼
240 vis., 5 color, 25-30 cold test	.13	.14	.13	.14	.13	.14
280 vis., 5 color, 25-30 cold test	.15	.16	.15	.16	.15	.16
Cylinder Stocks:						
600, steam refined, dark green	.08	.11	.08	.11	.08	.11
600, steam refined, light green	.06	.07	.06	.07	.06	.07
190-200 vis. @ 210 Bright Stock	.33	.35	.33	.35	.33	.35
150-160 vis. @ 210 Bright Stock	.28	.31	.28	.31	.28	.31
Waxes:						
124-126 White Crude Scale Wax	.04½		.04½		.04½	.04⅝
PENNSYLVANIA—						
150, 3 color	.23		.23		.23	
180, 3 color	.27		.26½		.26½	
200, 3 color	.29		.28¾		.28½	
220, 3 color	.31		.31		.31	
600, steam refined	.11¾		.12¼		.12¼	
635, steam refined	.15½		.15½		.15½	
650, steam refined	.16½		.16		.16	
600, Pennsylvania flash	.21		.21		.21	
630, Pennsylvania flash	.30½		.30½		.30½	

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

*550, E filtered	.19		.19		.19	
600, E filtered	.21½		.21½		.21½	
*600, E filtered	.21½		.21½		.21½	
600, D filtered	.27		.27		.27	
550, E filtered	.18		.18		.18	
550, D filtered	.22		.22		.22	
Pennsylvania Bright Stock	.39		.39½		.40½	
122-124 White Crude Scale Wax	.05	.05⅛	.05	.05⅛	.05	.05⅛
†124-126 White Crude Scale Wax	.05⅛	.05¼	.05⅛	.05¼	.05⅛	.05¼

*At Warren, Pa. †At New York City.

GULF COAST (South Texas)—						
Zero Black	.96	.07	.06	.07	.06	.07
No. 2 color, 100 vis., pale oil	.11	.12	.11	.12	.11	.12
No. 3 color, 200 vis., pale oil	.11	.12	.11	.12	.11	.12
No. 3½ color, 300 vis., pale oil	.12	.13	.12	.13	.12	.13
No. 3¾ color, 500 vis., pale oil	.14	.15	.14	.15	.14	.15
No. 4 color, 750 vis., pale oil	.17	.18	.17	.18	.17	.18
No. 2 plus color, 200 vis., pale filtered	.21½		.21½		.21½	
No. 2 color, 300 vis., pale filtered	.24½		.24½		.24½	
No. 2½ color, 500 vis., pale filtered	.27½		.27½		.27½	
No. 2½ color, 750 vis., pale filtered	.35½		.35½		.35½	
No. 5 to 6 color, 200 vis., red oil	.10	.10½	.10	.10½	.10	.10½
No. 5 to 6 color, 300 vis., red oil	.11½	.12	.11½	.12	.11½	.12
No. 5 to 6 color, 500 vis., red oil	.12½	.13	.12½	.13	.12½	.13
No. 5 to 6 color, 750 vis., red oil	.16	.17	.16	.17	.16	.17
CALIFORNIA—						
130 vis., 2½-3 color	.10	.10½	.10	.10½	.10	.10½
200 vis., 2½-3 color	.10½	.11	.10½	.11	.10½	.11
300 vis., 3 -3½ color	.11	.11½	.11	.11½	.11	.11½
350 vis., 3½-4 color	.11	.11½	.11	.11½	.11	.11½
400 vis., 3½-4 color	.12½	.13	.12½	.13	.12½	.13
Red Neutral:						
200 vis., 4½-5 color	.09	.09½	.09	.09½	.09	.09½
300 vis., 5 -6 color	.09½	.10	.09½	.10	.09½	.10
400 vis., 5 -6 color	.11½	.12	.11½	.12	.11½	.12
500 vis, 4½-5 color	.13	.13½	.13	.13½	.13	.13½
500 vis., 5 -6½ color	.12	.12½	.12	.12½	.12	.12½
600 vis., 6½ plus color	.12½	.13	.12½	.13	.12½	.13

Note: Bright stocks are not manufactured commercially on the Pacific Coast.

NEW YORK (BAYONNE) REFINERY PRICES

Gasoline:	Nov. 16	Nov. 9	Nov. 2
U. S. Motor, 58-60 437	.12	.12	.12
Export, 64-66 375	.13	.13	.13
Kerosene, prime white, 41-43	.10½	.10½	.10½
*Bunker Oil "C" 14-16, per bbl.	1.85	1.85	1.75
*Diesel Oil, 28-30, per bbl.	2.50	2.50	2.50
Gas Oil, 28 plus	.06¾	.06¾	.06¾
Furnace Oil (tankwagon)	.11	.11	.11
Cylinder Oil, light filtered, 600 s.r.	.29	.29	.29
Bright Stock, No. 5, 150 vis., at 212 F.	.42	.42	.42
White Neutral, No. 1, 170 vis., 1 color	.37	.37	.37
Spindle Oil, No. 1 red, 230 vis., 5½ color	.17½	.17½	.17½
Pale Oil, "25," 170 vis., 3½ color	.13	.13	.13
Pale Oil, "28," 100 vis., 2 color	.08	.08	.08
Red Oil:			
No. 3, 160 vis., 7 color	.11	.11	.11
No. 2, 212 vis., 5½ color	.12	.12	.12
No. 1, 265 vis., 5½ color	.13½	.13½	.13½
Polar, 295 vis., 6 color	.14	.14	.14
Paraffin Wax, refined:			
120-122 a.m.p., per lb.	.05¾	.05¾	.05¾
125-127 a.m.p., per lb.	.05⅞	.05⅞	.05⅞
130-132 a.m.p., per lb.	.06⅜	.06⅜	.06⅜
135-137 a.m.p., per lb.	.06⅝	.06⅝	.06⅝
Petrolatum, in bbls., per lb.:			
Dark green	.01⅞	.01⅞	.01⅞
Amber	.03⅜	.03⅜	.03⅜
Extra amber	.03¾	.03¾	.03¾
Cream	.05⅝	.05⅝	.05⅝
Lily white	.07⅝	.07⅝	.07⅞
Snow white	.08⅝	.08⅝	.08⅝

*Lighterage 5.5c a barrel extra.

NEW YORK CASE EXPORT PRICES

	Nov. 16	Nov. 9	Nov. 2
Gasoline, U. S. Motor, 58-60	.27.15	.27.15	.27.15
Kerosene:			
Standard white Kerosene	.19.15	.19.15	.19.15
Water white Kerosene	.20.65	.20.65	.20.65

LOS ANGELES EXPORT PRICES

	Nov. 16	Nov. 9	Nov. 2
Kerosene water white	.05½ .06	.05½ .06	.05½ .06
U. S. Motor Gasoline, 54-56 437 e.p.	.08¾ .09¼	.08¾ .09¼	.08¾ .09¼

CRUDE OIL PRICES

(California Prices on Page 154)

TEXAS PANHANDLE

Humble Oil & Refining Co.
Magnolia Petroleum Co.
Kay County Gas Co.

Carson County	$1.25
Hutchinson County	1.25
Wheeler County	1.25
*Gray County—	
28° to 28.9°	$1.00
29° to 29.9°	1.05
30° to 30.9°	1.10
31° to 31.9°	1.15
32° to 32.9°	1.20
33° to 33.9°	1.25
34° to 34.9°	1.30
35° to 35.9°	1.35
36° to 36.9°	1.40
37° to 37.9°	1.45
38° to 38.9°	1.50
39° to 39.9°	1.55
40° to 40.9°	1.60
41° to 41.9°	1.65
42° to 42.9°	1.70
43° to 43.9°	1.75
44° and above	1.80

Dates effective are: Humble Oil & Refining Co., Carson and Hutchinson Counties, September 22; Wheeler County, October 25; Gray County, November 1.

Magnolia Petroleum Co., September 22.

Kay County Gas Co., October 4.

*Gravity schedule posted only by Humble Oil & Refining Co. Other buyers pay $1.25 for all grades.

OKLAHOMA, KANSAS, NORTH AND EAST CENTRAL TEXAS

	Prairie O. & G. Co. Gulf Refining Co. Sinclair Crude Pur. Co.	Humble O. & R. Co. Carter Oil Co. Magnolia Pet. Co. The Texas Company
Below 28°	$ **	$ **
28° to 28.9°	1.65	1.50
29° to 29.9°	1.73	1.55
30° to 30.9°	1.81	1.60
31° to 31.9°	1.89	1.65
32° to 32.9°	1.97	1.70
33° to 33.9°	2.05	1.75
34° to 34.9°	2.13	1.80
35° to 35.9°	2.21	1.85
36° to 36.9°	2.29	1.90
37° to 37.9°	2.37	1.95
38° to 38.9°	2.45	2.00
39° to 39.9°	2.53	2.05
40° to 40.9°	2.61	2.10
41° to 41.9°	2.69	2.15
42° to 42.9°	2.77	2.20
43° to 43.9°	2.85	2.25
44° to 44.9°	2.93	2.30
45° to 45.9°	3.01	2.35
46° to 46.9°	3.09	2.40
47° to 47.9°	3.17	2.45
48° to 48.9°	3.25	2.50
49° to 49.9°	3.33	2.55
50° to 50.9°	3.41	2.60
51° to 51.9°	3.49	2.65
52° and above	3.57	2.70

Fields posted in and dates effective are:

Prairie Oil & Gas Co., Oklahoma, Kansas and north Texas, May 15.

Sinclair Crude Purchasing Co., Oklahoma, Kansas and north Texas, May 15.

Humble Oil & Refining Co., north Texas, Ranger, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona, November 1.

Magnolia Petroleum Co., Oklahoma, Kansas, north and east central Texas, except Corsicana heavy, and Lytton Springs of south central Texas, November 2.

Carter Oil Co., Oklahoma and Kansas, November 2.

The Texas Company, Oklahoma, Kansas and north and east central Texas, November 5.

Gulf Refining Co., Oklahoma and north Texas, May 15.

**Prices for crude below 28° gravity are: Prairie Oil & Gas Co., and Sinclair Crude Purchasing Co., none; Gulf Refining Co., 8 cents less for each degree; Magnolia Petroleum Co., $1.30 (effective May 15); other companies, 5 cents less for each degree.

‡Iatan (Eff. May 15)	$1.15
‡Corsicana heavy (Eff. May 15)	1.25
‡Panola County (Eff. May 15)—	
30° to 34.9°	1.95
35° to 37.9°	2.10
38° and above	2.25

‡Posted by Magnolia Petroleum Co.

WEST TEXAS

Kay County Gas Co.
Humble Oil & Refining Co.

Crane, Upton and Crockett Counties.

Below 26°	$ .80
26° to 26.9°	.85
27° to 27.9°	.90
28° to 28.9°	.95
29° to 29.9°	1.00
30° to 30.9°	1.05
31° to 31.9°	1.10
32° to 32.9°	1.15
33° to 33.9°	1.20
34° to 34.9°	1.25
35° to 35.9°	1.30
36° and above	1.35
Howard County	1.65

Kay County Gas Co. prices effective September 15, for Crane-Upton Counties crude oil. Humble Oil & Refining Co. prices effective October 25. Howard County crude posted by Kay County Gas Co. and Magnolia Petroleum Co.

*GULF COAST

(Goose Creek, Hull, Liberty, West Columbia, Orange, Boling, Pierce Junction and Spindletop crudes.)

Grade A	$1.40
Grade B—	
Below 25°	1.40
25° to 25.9°	1.45
26° to 26.9°	1.50
27° to 27.9°	1.55
28° to 28.9°	1.60
29° to 29.9°	1.65
30° to 30.9°	1.70
31° to 31.9°	1.75
32° to 32.9°	1.80
33° to 33.9°	1.85
34° to 34.9°	1.90
35° to 35.9°	1.95
‡36° to 36.9°	2.00
‡37° to 37.9°	2.05
‡38° to 38.9°	2.10
‡39° to 39.9°	2.15
†40° and above	2.20

*Humble Oil & Refining Co. and other buyers except The Texas Company classify Gulf Coast crude under two grades, with Grade B on a gravity basis. The Texas Company maintains three classifications, Grade A, Grade B and light crude, the latter on a gravity basis with same prices as on Grade B schedule of Humble Oil & Refining Co.

Dates effective are: Humble Oil & Refining Co., Gulf Pipe Line Co., and The Texas Company, Spindletop, November 10, other fields, August 30; Sun Pipe Line Co., Spindletop, November 10, other fields, September 1; Magnolia Petroleum Co., Spindletop, November 16, other fields, August 30.

†Not posted by Humble Oil & Refining Co., whose schedule ends at "35° and above" at $1.95.

Gulf Pipe Line Co.

Jennings, (La.) (October 29)	$1.15

SOUTH CENTRAL AND SOUTHWESTERN TEXAS

***Magnolia Petroleum Co.**

Luling (contract) (Eff. May 18)	$1.30
Mirando (Webb, Jim Hogg and Zapata Counties) (May 15)	1.25
Rockdale-Minerva (Milam County)	1.25
Thrall	1.00
Callihan (Live Oak and McMullen Counties) (May 15)	1.75
†Lockhart (Lytton Springs)	
Somerset (Grayburg Pipe Line Co.): (Effective October 14)	
28° to 28.9°	$1.25
29° to 29.9°	1.30
30° to 30.9°	1.36
31° to 31.9°	1.54
32° to 32.9°	1.62
33° to 33.9°	1.70
34° to 34.9°	1.78
35° to 35.9°	1.86
36° to 36.9°	1.94
37° to 37.9°	2.02
38° and above	2.10

*Texpata Pipe Line Co. and Humble Pipe Line Co. also post in Mirando Field.

†Lockhart prices same as for north and east central Texas. Lockhart posted by Magnolia Petroleum Co. and Humble Oil & Refining Co.

ARKANSAS AND NORTH LOUISIANA

(Caddo, Bull Bayou, Crichton, DeSoto, Haynesville, Homer and El Dorado.)

Below 28°	$1.40
Other grades from "28° to 28.9°" to "52° and above", inclusive, same as Humble Oil & Refining Co. schedule in north Texas.	
Cotton Valley	$1.20
Bellevue	1.40
Smackover, below 24°	1.10
24° to 24.9°	1.35
25° to 25.9°	1.40

(Continued on Page 160)

TANK WAGON MARKETS

Tankwagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns, Nov. 16.

ALL TANKWAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)

Main Service Station Price

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Chicago Dist.—				
†Less than 100 gals.	18.0	20.0	...	13.5

Tankwagon prices on April 19, 1922; g. up 1½c; May 8, up 1c; June 27, g. and k. up 1c; July 19, g. down 2c; k. down 1c; Oct. 10, g. down 2c; Oct. 21, g. down 1c; Feb. 5, 1923, g. up 1c; Feb. 20, g. up 1c; Aug. 14, g. down 6.6c; Oct. 4, k. down 1½c; No. 10, g. down 1.4c; Dec. 20, g. up 2c; Jan. 12, 1924, g. up 2c, k. up 1c; Feb. 5, g. up 2c, k. 1c; July 18, g. down 1c; July 30, g. and k. down 1c; Sept. 12, g. down 2c; Jan. 23, 1925, g. up 1c; Jan. 26, g. up 1c; Jan. 31, g. up 1c; Feb. 12, g. up 2c, k. up 1c; April 19, g. down 1c; July 14, g. up 1c; Aug. 25, g. down 2c, k. down 1c; Sept. 1, g. down 1c; Feb. 4, 1926, g. up 1c, k. up 1c; April 16, k. up 1c; April 24, k. up ½c; April 29, g. up 1c, k. up ½c; May 6, k. up ½c; May 17, g. and k. up 1c; July 1, k. down 1c; July 3, k. down 1c; Aug. 13, k. up 1c; Aug. 24, k. up 1c; Oct. 13, k. down 1c; Oct. 26, g. and k. down 1c.

Decatur, Ill.	18.2	20.2	...	14.0
E. St. Louis	17.1	19.35	...	13.1
Joliet	18.4	20.4	...	14.2
Peoria	18.2	20.2	...	14.0
Quincy	18.2	20.2	...	13.8
Davenport, Ia.	20.5	22.5	2.0	14.4
Des Moines	17.2	19.2	2.0	14.4
Keokuk	20.5	22.5	2.0	14.4
Sioux City	17.9	19.9	2.0	14.0
Duluth, Minn.	21.5	23.5	2.0	15.1
Minneapolis	17.2	19.2	2.0	15.1
La Cross, Wis.	21.3	23.3	2.0	14.9
Milwaukee	20.1	22.1	2.0	13.5
Madison	20.3	22.3	2.0	14.0
Detroit, Mich.	20.8	22.8	2.0	14.7
Grand Rapids	20.7	22.7	2.0	14.6
Saginaw	20.9	22.9	2.0	14.8
Evansville, Ind.	21.0	23.0	3.0	14.0
Ft. Wayne	21.4	23.4	3.0	14.4
Indianapolis	21.2	23.2	3.0	14.2
South Bend	21.4	23.4	3.0	14.4
Fargo, N. D.	22.9	24.9	2.0	17.1
Huron, S. D.	23.5	24.5	3.0	15.6
Sioux Falls	21.0	22.0	3.0	15.1
*K. C. Mo.	20.9	22.9	3.0	12.8
*Springfield	20.8	22.8	3.0	13.7
*St. Louis	19.6	21.9	2.5	13.5
*St. Joseph	20.9	22.0	2.5	13.4
‡Wichita, Kans.	18.8	20.8	2.0	13.3
Bartlesville, Ok.	19.5	21.5	3.0	13.3

NAPHTHAS

	Tank wagon	Tank car
Oleum spirits	21.0	16.0
V. M. & P. naphtha	23.0	16.5
Cleaner's naphtha	21.0	17.5

Tankwagon prices f.o.b. Chicago; tank car prices f.o.b. Whiting.

*State tax is 2c. Remainder is city tax.
†Quantity price on more than 100 gallons, 17.0.
‡At all Kansas points a discount of 1 cent a gallon is allowed from the tankwagon postings on dumps of 50 gallons or more.

The following monthly rebate system is effective on tankwagon schedules throughout the territory of Standard Oil Co. of Indiana: Over 750 gallons, ½c; over 2,000 gallons, ¾c; over 3,000 gallons, 1c; over 6,000 gallons, 1¼c; over 10,000 gallons, 2c. If quantity bought during the year is equal to 12 times the monthly agreed purchases the discount will be paid or credited on the entire quantity less monthly payments. Service station customers will receive discount of 1 cent a gallon on purchases amounting to 200 gallons a month or 2,400 gallons a year; and 2 cents a gallon on 600 gallons a month or 7,200 gallons a year.

STANOLIND FURNACE OIL
(Standard Oil Co. of Indiana)

Less than 100 gallons	10.0
100 to 399 gallons	9.5
400 or more gallons	9.0

SOUTHWESTERN DISTRICT

***Magnolia Petroleum Co.**

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Dallas, Tex.	†17.0	17.0	1.0	15.0
Fort Worth	†17.0	17.0	1.0	15.0
Houston	†19 0	19.0	1.0	15.0
San Antonio	†19.0	19.0	1.0	14.0
El Paso	†20.0	20.0	1.0	16.0
Texarkana	†20.0	20.0	1.0	15.0
Muskogee, Ok.	19 0	22.0	3.0	13.0
Okla. City	18.0	21.0	3.0	13.0
Tulsa	19.0	22.0	3.0	13.0
Little Rock	21.0	24.0	4.0	14.5
Ft. Smith, Ark.	21.0	24.0	4.0	14.5

*The following is the schedule of discounts on quantity gasoline sales adopted by the Magnolia Petroleum Co. in Oklahoma: Over 750 gallons a month, ½c; over 2,000 gallons, ¾c; over 3,000 gallons, 1c; over 4,500 gallons, 1¼c; over 6,000 gallons, 1½c; over 8,000 gallons, 1¾c; over 10,000 gallons, 2c. If the quantity bought during the year is 12 times the monthly agreed purchases, the discount will be paid or credited on the entire quantity for the year less any monthly purchases.

The schedule on service station deliveries is: Over 200 gallons a month, 1c; over 300 gallons a month, 1¼c; over 400 gallons, 1½c; over 500 gallons a month, 1¾c; over 600 gallons, 2c. The same rule applies for annual purchases as in the tankwagon discounts.

†Magnolia maintains only a retail schedule in Texas with dealers and large consumers allowed a flat 3-cent discount, except at El Paso, where the discount is only 2

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
*New Orleans	18.5	21.5	3.0	16.0
Alexandria	19.0	22.0	2.0	17.0
Baton Rouge	18.0	21.0	2.0	15.5
LaFayette	19.0	22.0	2.0	16.5
Lake Charles	19.5	22.5	2.0	17.0
Shreveport, La.	18.0	21.0	2.0	16.0
Memphis, Tenn.	20.0	23.0	3.0	17.0
Chattanooga	22.5	25.5	3.0	17.5
Knoxville	22.5	25.5	3.0	18.0
Nashville	21.0	24.0	3.0	18.0
Bristol	23.0	26.0	3.0	17.5
Little Rock, Ark	21.0	24.0	4.0	16.0

*Tax of 2c includes city tax of 1c.
*Louisiana kerosene prices include 1-cent State tax.

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Atlanta, Ga.	22 0	25 0	3 5	18 0
Augusta	22 0	25.0	3 5	17 0
Macon	22.0	25.0	3 5	18 0
Savannah	20 0	22 0	3 5	16 0
Birm'ghm, Ala.	21.0	24.0	3.0	17.5
Mobile	20.0	23.0	3.0	16.0
Montgomery	22.0	25.0	3.0	18.5
Clarksd'le, Miss	22.0	25.0	4.0	14.5
Jackson	22.0	25.0	4.0	15.5
Natchez	21.5	24.5	4.0	15.0
Vicksburg	21.5	24.5	4.0	15.0
Jack'ville, Fla.	20 0	23 0	4 0	16.0
Miami	22 0	25 0	4 0	17 5
Pensacola	21 0	24 0	4.0	16.5
Tampa	20 0	23 0	4 0	16 0
Covington	23.0	26.0	5.0	17.0
Louisville	22.0	25.0	5.0	17.0
Lexington, Ky.	23.0	26.0	5.0	17.0

In addition to the state tax of 2c on gasoline, Montgomery has city tax of 1c on gasoline and ½c on kerosene. Prices in Georgia include ½c inspection fee on gasoline and kerosene; in Florida, an inspection fee of 0.125c; in Alabama, an inspection fee of ½c on kerosene only.

OHIO

Standard Oil Co. (Ohio)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
All Ohio points	22.0	24.0	2.0	17.0

ROCKY MOUNTAIN DISTRICT

Continental Oil Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Denver, Colo.	21.0	21.0	2.0	16.0
Pueblo	21.0	23.0	2.0	16.0
Grand Jct.	25.0	27.0	2.0	20.0
Casper, Wyo.	21.5	23.5	2.5	14.5
Cheyenne	22.5	24.5	2.5	16.0
Butte, Mont.	21 0	21 0	2 0	19.5
Helena	25.0	27.0	2.0	19.5
Salt Lake, Utah	24.0	26.0	3.5	18.0
Boise, Idaho	25.0	27.0	3.0	20.0
Twin Falls	25.0	27.0	3.0	20.0
Albuquerque, N. Mex.	24.0	27.0	3.0	18.5

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Atlantic City	18.0	....	...	16.0
Newark, N. J.	18.0	20.0	...	16.0
Annapolis, Md.	20.0	....	2.0	16.0
Baltimore	20.0	23.0	2.0	15.0
Cumberland	20.0	23.0	2.0	16.0
Washington	20.0	23.0	2.0	16.0
Danville, Va.	22.5	....	4.5	16.0
Norfolk	22.5	25.5	4.5	16.0
Petersburg	22.5	25.5	4.5	16.0
Roanoke	23.5	25.5	4.5	16.0
Richmond	22.5	25.5	4.5	16.0
Charleston, W. Va.	21.5	24.5	3.5	16.0
Keyser	21.5	....	3.5	16.0
Parkersburg	21.5	24.5	3.5	16.0
Wheeling	21.5	24.5	3.5	16.0
Charlotte, N. C.	23.0	26.0	4.0	16.0
Hickory	23.0	....	4.0	16.0
Mt. Airy	23.0	26.0	4.0	16.0
Salisbury	23.0	26.0	4.0	16.0
Charleston, S.C.	24.0	27.0	5.0	16.0
Columbia	24.0	27.0	5.0	16.0

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Albany, N. Y.	17.0	....	...	18.0
*New York	21.0	....	...	18.0
Buffalo	18.0	....	...	18.0
Rochester	18.0	....	...	16.0
Syracuse	17.0	....	...	18.0
Boston, Mass.	19.0	....	...	18.0
Augusta, Me.	24.0	....	3.0	18.0
Manchester, N. H.	23.0	....	2.0	18.0
Burlington, Vt.	23.0	....	2.0	18.0

*Price in steel barrels.
Note: Standard Oil Co. of New York does not generally quote service station price in its territory. In most cases the service station price is 2 to 3 cents higher than tankwagon price.

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
Omaha	18.25	20.25	2.0	14.0
McCook	21.75	23.75	2.0	15.5
Norfolk	19.0	21.0	2.0	14.5
N. Platte	21.75	23.75	2.0	15.25
Scottsbluff	21.25	23.75	2.0	14.75

PACIFIC COAST DISTRICT

Standard Oil Co. (California)

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
San Francisco	15.0	18.0	2.0	15.5
Los Angeles	13.5	16.5	3.0	15.0
Fresno	15.5	18.5	3.0	17.5
Reno, Nev.	20.5	23.5	4.0	19.0
Portland, Ore.	16.0	19.0	3.0	18.5
Seattle, Wash.	15.0	18.0	3.0	18.5
Spokane	19.0	22.0	3.0	20.5
Tacoma	15.0	18.0	3.0	16.5
Phoenix, Ariz.	22.0	25.0	3.0	21.5

PENNSYLVANIA-DELAWARE AND PART NEW ENGLAND

Atlantic Refining Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incids tax of	Tank wagon
*Pittsburgh, Pa.	19.0	24.0	...	18.0
*Philadelphia	19.0	24.0	...	16.0
*Scranton	19.0	24.0	...	16.0
*Allentown	19.0	24.0	...	16.0
Altoona	19.0	24.0	...	16.0
*Erie	17.0	22.0	...	18.0
Dover, Del.	21.0	24.0	2.0	16.0
Wilmington	21.0	24.0	2.0	16.0
Spring'd, Mass.	19.0	21.0	...	18.0
Worcester	19.0	21.0	...	18.0
Boston	19.0	21.0	...	18.0
Providence, R. I.	20.0	22.0	1.0	18.0
Hartford, Conn.	21.0	24.0	2.0	17.0
New Haven	21.0	24.0	2.0	18.0

*Pennsylvania tax of 2c is collected by the dealer and paid by him direct to the State.

CALIFORNIA CRUDE PRICES

***Standard Oil Co.-Union Oil Co.**
(Effective March 11)

Gravity—	Long Beach Huntington Beach Brea-Olinda Rosecrans-Dom'guez Torrance-Inglewood	Whittier La Habra Montebello	Kern River Newhall-McKittrick Midway-Sunset Elk Hills Lost Hills Belridge	Coyote	Santa Fe Springs	Coalinga	Wheeler Ridge	Santa Maria Ventura Salt Lake
14°	.85	.85	.75	.85	.....	.75	.75	.85
15°	.87	.85	.75	.85	.....	.75	.75	.85
16°	.90	.85	.75	.85	.....	.75	.75	.85
17°	.94	.85	.75	.85	.....	.75	.75	.85
18°	.98	.86	.75	.86	.....	.75	.75	.85
19°	1.04	.87	.75	.87	.....	.75	.75	.85
20°	1.10	.89	.82	.90	.89	.79	.75	.90
21°	1.16	.91	.90	.98	.91	.86	.81	.97
22°	1.22	.94	1.00	1.06	.94	.93	.85	1.04
23°	1.28	.97	1.11	1.14	.97	1.00	.89	1.11
24°	1.34	1.01	1.22	1.22	1.02	1.07	.93	1.18
25°	1.40	1.05	1.33	1.30	1.08	1.14	.97	1.25
26°	1.46	1.09	1.44	1.38	1.16	1.21	1.01	1.32
27°	1.52	1.13	1.55	1.46	1.24	1.28	1.05	1.39
28°	1.58	1.17	1.66	1.54	1.32	1.35	.....	1.46
29°	1.64	1.21	1.77	1.62	1.40	1.42	.....	1.53
30°	1.70	1.25	1.88	1.70	1.48	1.49	.....	1.60
31°	1.76	.....	1.99	.....	1.60	1.56	.....	1.67
32°	1.84	.....	2.10	.....	1.72	1.63	.....	1.73
33°	1.92	.....	2.21	.....	1.84	1.70	.....	1.79
34°	2.32	.....	2.32	.....	1.96	1.77	.....	1.85
35°	2.08	.....	.....	.....	2.08	1.84	.....	1.92
36°	2.16	.....	.....	.....	2.16	.....	.....	.....
37°	2.24	.....	.....	.....	2.24	.....	.....	.....
38°	2.34	.....	.....	.....	2.34	.....	.....	.....
39°	2.44	.....	.....	.....	2.44	.....	.....	.....
40°	2.54	.....	.....	.....	.....	.....	.....	.....
41°	2.64	.....	.....	.....	.....	.....	.....	.....
42°	2.74	.....	.....	.....	.....	.....	.....	.....

*Column 2—Long Beach and Huntington Beach crudes, 14 to 32 degrees, inclusive; Richfield and Brea-Olinda, 14 to 30 degrees; Torrance and Inglewood, 14 to 28 degrees; Dominguez, 24 to 42 degrees. Rosecrans crude ranges from 14 to 42 degrees, but only Union Oil Co. posts below 24 degrees.
Column 3—Whittier and La Habra crudes, 14 to 22 degrees; Montebello, 14 to 30 degrees.
Column 4—Kern River, Newhall and McKittrick, 14 to 19 degrees; Midway-Sunset and Elk Hills, 14 to 33 degrees; Lost Hills and Belridge, 14 to 34 degrees.
Column 6—Santa Fe Springs. Only Union Oil Co. posts below 24 degrees.
Column 9—Salt Lake, 14 to 19 degrees, inclusive; Santa Maria, 14 to 30 degrees; Ventura, 14 to 35 degrees. Posted only by Union Oil Co.

TANKWAGON PRICE CHANGES

November 9.—Magnolia Petroleum Co. reduced gasoline 1 cent at El Paso, Tex., and also the dealers discount there from 3 to 2 cents. Standard Oil Co. of Indiana reduced tankwagon and service station prices of gasoline 0.8 cent at Des Moines.

November 10.—Continental Oil Co. reduced tankwagon prices of gasoline 3 cents in New Mexico. Service station prices were unchanged. Tankwagon and service station prices formerly were the same.

November 12. — Magnolia Petroleum Co. reduced kerosene 1 cent at San Antonio, Tex.

CRUDE PRICE CHANGES

November 10.—Humble Oil & Refining Co. and other buyers advanced Spindletop crude 15 cents, making one price schedule for all Gulf Coast crude.

November 16 — Magnolia Petroleum Co. advanced Spindletop crude 15 cents to meet advances of other purchasers on November 10.

SHREVEPORT MARKET IS DULL AND WEAKER

SHREVEPORT, La., Nov. 15.—U. S. Motor gasoline in the Shreveport territory during the past week was dull and weaker, although one refiner reported a healthy business for the week. On the opening of the week U. S. Motor gasoline was being quoted anywhere from 9 to 9½ cents. Natural gasolines showed a little strength the latter part of the week. Considerable Grade C natural gasoline was shipped to northern and eastern markets.

Gas oils were more in demand and moved steadily. The same brisk movement that attended that product throughout the past week featured gas oils at the opening of the week. Fuel oil was slow and kerosene was weak. Little distillate is available in the territory.

FRANK JAMIESON DEAD

PONCA CITY, Okla., Nov. 13.—Frank Jamieson, 44 years old, well-known oil man, was found dead in his garage here, evidently a victim of heart trouble. He had lived here since the Cherokee Strip was opened. He was formerly associated with the Wentz Oil Corp. At the time of his death, his company, the Mummert Drilling Co., was sinking several wells in this vicinity. He is survived by a wife, a sister of J. J. McGraw of Tulsa.

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New Jersey to Retire Preferred Stock

Approximately $200,000,000 7 Per Cent Issue to Be Replaced by 5 Per Cent Debentures and Common

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, Room 543, 30 Church St., New York City

NEW YORK, Nov. 15.—The directors of the Standard Oil Co. of New Jersey, today voted to retire approximately $200,000,000 of 7 per cent preferred stock through the issuance of new debentures and common stock, aggregating more than $206,000,000.

The transaction will involve the sale of $120,000,000 20-year 5 per cent debentures, to be offered publicly by J. P. Morgan & Co., and an offering to common stockholders of 3,449,317 additional common shares at their par value of $25 a share. An extra dividend of 12½ cents a share was declared on the common stock today in addition to the regular quarterly payment of 25 cents.

Preference in the allotment of the bonds will be given to the preferred stockholders whose securities will be called for redemption on March 15. The bankers have been deluged with applications, assuring a huge oversubscription. The debentures will be nonconvertible.

Approximately $30,000,000 above the face value of the preferred stock will be required to defray the cost of its redemption at a 15-point premium, or $115 a share. This will necessitate the withdrawal of $25,000,000 or more from the company's treasury in addition to the proceeds from the sale of new common shares and debentures. The replacement of the 7 per cent preferred stock by 5 per cent debentures and common stock will result in a net saving of roughly $3,000,000 annually.

Statement by Company

The Standard Oil Co. issued the following statement:

"When the period of rapid commercial expansion following the war made such extraordinary demands upon surplus capital, the petroleum business was in the same position as other American industries in its need of additional funds to provide for the increased consumption of products. The Standard Oil Co. of New Jersey faced in 1919 and 1920 the need of large sums beyond its working capital, not only to maintain its place in the industry, but also to replenish its treasury after meeting heavy inroads made by war taxes. To supply this need, two issues of 7 per cent preferred stock, aggregating $200,000,000 were sold to investors.

"Conditions at that time justified a higher rate for money than was expected to obtain subsequently when investment funds should become more plentiful. Accordingly the terms of the two issues were drawn to permit their retirement at $115 per share on any dividend date after three years from the date of issuance.

"Dividends on this preferred stock in the period which has elapsed have been more than covered by earnings on the new capital supplied.

"However, easier money market conditions having now come into play, the directors deem it in the interests of the company to take advantage of the call feature and retire the preferred issues.

"The entire benefit of the saving which will be effected by replacing the present 7 per cent preferred stock with lower interest-bearing debentures will accrue to the holders of the common stock.

"For one reason the directors of the Standard Oil Co. of New Jersey regret the necessity of calling this issue. There are 36,000 investors on the company's books as holders of the preferred stock and their association with an interest in the company's affairs has been a constant source of satisfaction to the management.

"Premature reports of proposals to retire this issue have brought many letters from holders who have indicated a wish to continue their investment in some form of security of the company. The probability is that such of these holders as desire to reinvest in another Standard Oil Co. of New Jersey security will be given an opportunity to do so through an offering of debentures of the company of J. P. Morgan & Co."

Oil Securities Show Strength

Oil securities as a whole were firm with a few issues showing strength. National Supply continued to forge ahead. Chesebrough Manufacturing and Eastern Pipe Line issues were strong.

Beacon Oil

The Beacon Oil Co. reports for the nine months ended September 30, 1926, profit of $1,009,430 after interest, depreciation, etc., but before Federal taxes. Profit for the quarter ended September 30, 1926, totaled $652,835 before Federal taxes.

The company has outstanding 24,126 shares of 7 per cent preferred stock and 704,000 shares of no par value common.

The income account for the nine months ended September 30, 1926, and the quarter, follows:

	Quar. ended Sept. 30, 1926	9 Mo. ended Sept. 30, 1926
Gross income	$1,805,402	$3,935,164
Exp., int. & depr.	1,152,567	2,925,734
Prof. before Fed. tax.	$ 652,835	$1,009,430
Pref. dividends	45,243	135,719
Surplus	$ 607,592	$ 873,711

British Controlled Oilfields

At the stockholders' meeting of British Controlled Oilfields, Ltd., shareholders representing £1,226,000 agreed to take steps to dissolve the voting trust deed and elected an advisory committee to cooperate with the newly appointed board if latter is willing to stay in office until committee appoints new board.

Tidal-Osage

The Tidal-Osage Oil Co., subsidiary of Tide Water Oil, has called for redemption on January 15, its entire issue of 7 per cent preferred stock, amounting to about $520,900. Stockholders have the privilege of converting one share of preferred into four shares of common.

Mexican Seaboard

The report of Mexican Seaboard Oil Co. and International Petroleum Co. for the quarter ended September 30, 1926, show combined loss of $144,904, after interest, drilling expenses, etc., but before depletion. This compares with loss of $339,146 in preceding quarter and loss of $494,126 in third quarter of 1925.

The combined loss for the first nine months of 1926 totaled $377,384, before depletion, against loss of $539,269 in the same period of previous year.

Cia International de Petroleo y Oleoductos, S. A., pipeline subsidiary of Mexican Seaboard, reports for the quarter ended September 30, 1926, loss of $7,889 after expenses and amortization, comparing with profit of $29,415 in preceding quarter and profit of $27,814 in September quarter of 1925.

Middle States Oil

Henry S. Fleming, chairman of stockholders' protective committee of Middle States Oil Corp., states that a letter to stockholders dated November 4, by Robert Wilson Jackson, a member of the committee, was unauthorized by the committee and issued without its knowledge. The committee has requested his resignation.

The committee holds a large number of proxies and says it is desirable all proxies from stockholders be lodged with it to avoid any differences which might prevent carrying through successful reorganization plan. The committee is taking an active part, in conjunction with receivers and other committees, in discussing measures which will ultimately lead to plan of reorganization, but says all interested are convinced no definite plan can be formulated until a decision is reached with regard to the large sums still maintained by the Government as due for income and other taxes.

Pan American Western

Pan American Western Petroleum Co. and subsidiaries report for the quarter ended September 30, 1926, net profit of $448,930 after depreciation, depletion, interest, etc., equivalent to 89 cents a share earned on 500,010 no par shares of the combined Class A and Class B stocks.

Net profit for the first nine months of 1926 totaled $2,076,048 after depreciation, depletion, interest and Federal taxes, etc., equivalent to $4.15 a share earned on combined Class A and Class B stocks.

Consolidated income account for the quarter and nine months ended September 30, 1926, follows:

	Quar. ended Sept. 30, 1926	9 Mo. ended Sept. 30, 1926
Gross sales	$9,393,111	$25,815,870
Oper. costs, etc.	7,417,982	19,226,251
Depr. & depl.	920,054	2,593,785
Expenses	174,605	551,896
Interest	431,540	1,222,549
Federal taxes		145,341
Net profit	$ 448,930	$ 2,076,048

Standard of Indiana

The Wall Street Journal says:

"Standard Oil of Indiana is having a record year for profits. The big refiner and marketer of the Middle West is expected to turn in for 1926 an income account which will show last year's net of $52,932,648, equal to $5.84 a share, well exceeded."

NEW YORK STOCK EXCHANGE—LIST OF ACTIVE STOCKS

Stocks—	Par	Clos. Quot. Nov. 15	Clos. Quot. Nov. 8	1926 High	1926 Low	1925 High	1925 Low	1924 High	1924 Low
Amerada Corp.	..	30	29⅝	32⅞	21⅝	..	..	..	..
Atlantic Ref., com.	100	103⅞	103	128⅜	97	117½	95½	140⅛	75½
Barnsdall "A"	25	27¼	*25	33½	23½	33½	18⅝	29½	14
California Pet., com.	25	30⅝	31½	38⅛	30⅝	34⅜	23⅞	29	19⅝
Houston Oil	100	*54	54½	72	50¾	85	59	82½	61
Independent Oil & Gas	..	28⅞	27½	34	20¼	41⅜	13½	16⅛	5⅜
Indian Refining	10	*9	8½	13⅜	9½	14¼	5½	7	3⅜
Lago Oil & Trans.	..	21⅛	21⅜	24½	19¼	..	..	..	..
Louisiana Oil	10	14¼	14⅝	19⅝	12	23¾	13⅜	..	..
Maracaibo	..	19¼	17½	28⅞	18⅜	35½	20⅜	37¼	25⅜
Marland	..	53½	42⅜	63⅝	49¼	60⅛	32⅝	42	29
Mexican Seaboard	..	8⅜	8⅜	13⅜	6	22½	9	26⅜	14½
Mid-Continent Pet.	..	31	30¼	41	25⅝	38	25⅜	40¼	22⅝
National Supply	50	81	76½	81⅞	65¼	71	64⅜	72½	64
Oil Well Supply	25	31½	*32	36	30	38	33⅜	..	..
Pan. Amer., B.	50	64	64⅜	72⅜	56⅛	83⅜	59½	65	44½
Pan. Amer., Western B	..	*34	34	46	34	49⅝	37¼	..	..
Phillips Pet.	..	51⅛	48⅞	52⅝	42½	47⅛	36¼	52¼	28½
Producers & Refiners	50	19	20¼	17½	11	32⅝	12½	32½	29⅝
Pure Oil, com.	..	26⅝	27	31	25⅝	33⅝	25⅛	30¼	20
Royal Dutch, N. Y., sh.	13.40	49¼	48½	57⅜	45⅝	57⅝	48¼	59⅛	40⅜
Shell Transport	10	*43⅝	*42	48⅜	42	49	39⅜	42	33
Shell Union, com.	..	30⅝	30⅛	30⅝	24	28⅜	21⅝	22½	15⅝
Simms Pet.	10	18⅝	18⅛	28⅝	16½	28½	17⅜	24	10⅝
Sinclair Consolidated, com.	..	17⅜	18¼	24⅞	16⅜	24⅞	17	17½	15
Skelly Oil	25	33½	32	37½	27	32½	21⅜	29	17½
Standard of California	25	58⅞	60⅞	63½	54	67¼	51½	68½	55½
Standard of New Jersey, com.	25	42⅝	43	46⅝	40¼	47½	38⅝	42½	33
Sun Oil Co.	..	*33½	33	41⅝	30½	43⅞	38½	..	..
The Texas Company	25	54⅝	55¼	58	48	55	42⅜	46⅝	37⅜
Texas Pacific Coal & Oil	10	15	15	19½	12⅛	23⅝	11	15¼	8⅛
Tide Water Oil	25	28	*27	39¼	30⅛	..	..	..	..
Transcontinental	..	4⅛	4⅛	5½	3	5⅝	3½	6½	3⅜
Union Oil of California	25	53⅝	55¼	58⅝	37½	43⅝	33⅜	30	35½
Union Tank, com.	100	115¾	114	120⅝	84¼	†134	118	132⅞	94
White Eagle Oil & Refining	..	25⅞	26	29⅜	25¼	31⅜	25⅝	29⅝	23½
Standard Oils									
Anglo-American Oil	£1	*19	19½	19⅜	16½	26⅜	17½	18⅜	14⅜
Borne Scrymser	100	68	*64	295	226	240	205	164	150
Buckeye Pipe Line	50	43	*42⅜	59½	47⅝	72	63½	85½	51
Chesebrough Mfg. Co.	25	81½	74	81⅛	63	74	48¼	62½	29¼
Continental	10	19⅛	18⅞	25⅞	19¼	31⅛	21⅞	..	..
Crescent Pipe Line	25	*15	15½	16	14½	17½	10	20	11⅜
Cumberland Pipe Line	100	113	105	137	108	156	128	148	108
Eureka Pipe Line	100	46	*41½	63⅜	47⅜	96	61¼	105	74
Galena Signal, com.	100	*11⅛	11⅛	22½	9⅞	68⅛	23⅜	69¾	62⅛
Humble Oil & Refining Co.	25	57⅞	57	68⅝	52	59	42½	43⅜	36
Illinois Pipe Line	100	136½	*134½	144	131	154½	124	161	123
Imperial Oil, Ltd.	..	37⅜	38¼	38⅜	32½	39¼	27¼	119	99
Indiana Pipe Line	50	*58	*53	68	58	84	87½	100	66
International Pet. Co.	10	31⅜	31⅜	35¼	28⅜	25⅜	22½	34⅜	16⅞
National Transit Co.	12.50	12⅜	12⅝	20⅜	14½	25½	16½	25⅞	20⅝
New York Transit	100	*30	*27¼	51½	31	79	50	97	54½
Northern Pipe Line	100	74	64	80½	68	88	67½	107½	72
Ohio Oil Co.	25	57⅜	58½	67⅜	55⅜	75¼	60	79½	53
Penn-Mex. Fuel	25	19⅜	*19	24¼	15	44	19	35⅝	27
Prairie Oil & Gas	25	49½	49⅝	60¼	48	65½	45⅞	269	193
Prairie Pipe Line	100	124⅜	124¼	127	122½	129⅜	105	111	100
Solar Refining Co.	100	*196	*194	212	184½	259	200	240	170
South Penn Oil	25	*36	36¼	50	35	†197	139	175	117
Southwest Pa. Pipe	100	55½	*55	56	47½	84	50	89	68
Southern Pipe Line	50	*23½	*23	74½	61¼	103	63	100	80½
Standard of Indiana	25	64⅞	64⅜	70½	61⅝	70⅝	69½	69⅝	54¼
Standard of Kansas	25	19⅜	19	36½	16⅛	46	30¼	50½	32⅛
Standard of Kentucky	25	*119	119¼	134⅜	108	137	114⅜	121⅞	101
Standard of Nebraska	25	48⅝	47	†51⅛	†42	270	231	262	198
Standard of New York	25	32⅛	32¼	47⅛	30⅝	48⅝	40	48	37⅜
Standard of Ohio, com.	100	300	300	362	292½	369	338	337½	277
Swan & Finch, com.	25	*16	*16	21	18	27	12	28	20
Vacuum Oil	25	96⅝	96⅜	109⅝	94½	109½	80½	83½	50½
Miscellaneous									
Gulf Oil Corp. of Pa.	25	91½	90½	95	82½	98⅛	63⅛	67⅜	56
Tidewater Associated	..	23⅜	23⅝	27	21	..	..	..	..

*Bid, no sales. †Old stock. ‡New stock.

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange was as follows:

Nov. 15	57.67	Oct. 11	56.54	Sept. 3	60.16
Nov. 8	57.84	Oct. 4	57.93	Aug. 30	59.86
Nov. 1	57.93	Sept. 27	58.78	Aug. 23	59.06
Oct. 25	56.39	Sept. 20	58.46	Aug. 16	58.34
Oct. 18	56.53	Sept. 13	59.06	Aug. 9	59.35

Annual Convention Of American Oil Men Is Largely Attended

CHICAGO, Nov. 16.—With a registration at noon today of approximately 250 jobbers and refiners all indications pointed to a large attendance at the annual convention of the American Oil Men's Association which opened here this morning at the Congress Hotel. The convention extends through Thursday. Practically all those who arrived this morning were in attendance at the luncheon today.

F. B. Koontz, general superintendent of the West Tulsa, Okla., refinery of the Mid-Continent Petroleum Corp., led a discussion on motor fuels this afternoon. Mr. Koontz' talk was mainly concerned with the problem as it concerns the manufacturer of gasolines.

Dr. G. G. Brown, professor of the University of Michigan, and head of the Research Department of the Association of Natural Gasoline Manufacturers, gave an interesting talk on the importance of blending natural gasolines with the refinery products to secure quality motor fuels.

The Chicago Oil Men's Club is acting as host during the convention, and this evening will entertain the membership with a buffet supper and athletic carnival. The exhibits of the supply companies fill the Gold Room of the hotel.

AVIATION REQUIRES HIGH GRADE MOTOR FUEL

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as a water-white color requirements assists in visual detection of the presence of dirt or impurities. The odor is, however, highly important. Certain of the motor fuels produced by cracking processes in recent years have had excellent qualities, but have been unfit for use in aircraft because of their nauseating odor. The quantities of fuel and the installation of the fuel tanks and system in aircraft are such that fumes of the fuel are very apt to reach both pilot and passengers, and it is extremely necessary that long exposure to these odors should not produce unpleasant or injurious effects.

The corrosive properties of fuels for aircraft are of great importance. Sulphur is the principal offender since it attacks copper or brass tubing, fittings and tanks very readily. It is doubted whether sulphur which actually enters the engine causes any measurable harm, but the quantities of fuel and the rates of consumption are such that partial or complete stoppage of the fuel supply may readily result from use of a fuel of only moderately corrosive nature. There are authentic instances of engine failure resulting from fuel supply failure caused entirely by the corrosive action of the fuel. The inconvenience, not to mention the hazard, of a forced landing of an aircraft justifies maximum care in eliminating all corrosive properties from aviation fuels.

Gum Test

Closely allied to the questions of corrosive properties or unpleasant odor of fuels are the gum-forming propensities. On the ground, in an automobile engine for instance, there is no great harm done if a valve sticks. The automobile can limp into the repair station or in extreme cases can be towed in without material expense or risk of injury. If a valve of an airplane engine sticks in flight, the results may be serious. The quantities of fuel consumed by an aircraft engine are such that any tendency of the fuel to accumulate gummy deposits on the valve stems must be eliminated. Fuels which operate satisfactorily for months in automotive power plants break down under the operating conditions of an aircraft power plant and gum up the valve stems in a few hours causing failure of the engine. Other fuels which are entirely satisfactory under normal conditions at sea level are totally unsuited to use in aircraft of high performance because of the tendency of the fuel to freeze or crystallize at low temperatures. An airplane may leave the ground where the temperature is comfortably warm and in 10 or 15 minutes it may be speeding through air at temperatures far below zero. Under these extremes of temperature, an aircraft fuel must remain fluid if the power plant is to continue in operation.

Any proposal involving a change in Federal specifications affects so many interested parties that the reasons for the modifications must be fundamentally sound before changes are warranted. It is manifestly undesirable in the case of aviation fuels to limit the source of supply so closely that in time of national emergency proper fuels would be available. It is not safe for any manufacturer of automotive engines to design his product for a grade of fuel better than the average obtainable throughout the country. At the same time, we are demanding increased performance and increased power per pound of engine, per cubic inch of piston displacement, and per dollar of investment. For military and naval aircraft power plants it is particularly important that these demands be met in the highest practicable degree.

PRICES HAVE HELD REMARKABLY WELL

(Continued from Page 37)

dawned with Burbank showing more and more productive, and during the spring and summer California contributed three major fields to the panicky market. Cromwell and the deep sand development of Tonkawa dimmed the brilliance of the prospects during 1924, and the famous Smackover debacle kept the production figures sky high in 1925. If therefore seems only natural that 1926 should produce a worry of its own, and when compared with former annoyances, Seminole and Panhandle seem very trivial.

And so as the Thanksgiving gobbler is devoured, the oil men of the nation should recall that the cotton industry and several other branches of commerce envy their plight, and if they find themselves losing instead of making money, it is an indication that they should abandon the derrick and the map for the more peaceful pursuits of the grocery store or the insurance field.

The oil man should also find comfort in the promise that Uncle Sam will return 15 per cent of 1926 income taxes in 1927.

VISCOSITY IS TOPIC AT COFFEYVILLE MEETING

(Continued from Page 146)

methods practiced by many jobbers in the management of their affairs. Particularly, he warned them of the great losses piled up each year by evaporation and leakage of oils. He told them to figure gallonage rather than dollars and cents in arriving at the annual profits. Evaporations should never be greater than 1 per cent, and a close check of all tanks and gauges in service sometimes means the difference between failure and success, Mr. Warren declared.

"The secret of success is the proper manner of handling your own business," he said.

Viscosity Discussed

While viscosity bears no relationship to pressure in a chemical laboratory, it is closely related to pressure in practical use, E. W. Fawcett of Topeka told the oil jobbers.

"In a laboratory we determine the viscosity at 100 Fahrenheit or 212 Fahrenheit, and make the other tests that govern it," Mr. Fawcett said. "In a motor the viscosity has a direct relation to pressure, to heat, to compression, to circulation and resulting efficiency or deficiency, controlled by the other specifications that back up or fail to back up the viscosity at working temperatures. It is not at normal temperatures that the resistance to heat is determined. The fact is determined as to whether the oil has actual viscosity at working temperatures or merely thickness at normal temperatures.

"An oil must circulate before it lubricates. Therefore the dial pressure on an indicator is not a definite standard of lubricating value, for often the pressure is mistaken for fluid resistance, which prevents lubrication regardless of dial pressure and can be caused by the necessity of having a high viscosity at 100 Fahrenheit in order to have body left at working temperatures, or by a high suspended wax content, or by a loaded oil."

All other tests being equal, the speaker said, if two oils have the same body at 212 Fahrenheit the one having the lighter body at 100 Fahrenheit is the better grade. He ran through the various standard tests, giving many of the whys and wherefors from the standpoint of the technician.

Antiknock Gasoline

The talk by Mr. Gardner on "Antiknock Gasoline" was an informal but exhaustive discussion of a subject which was unheard of until three or four years ago, but which has taken its place alongside the many other successful innovations developed by experts of the new day.

Mr. Gardner described the different kinds of antiknock gasolines which are being marketed at this time. According to the speaker, gasoline to which tetraethyl lead has been added is equivalent to a blend containing 40 per cent benzol. The various cracking processes produce gasolines which are more or less antiknock, the degree varying with the character or source of the crude oil and the extent of cracking, as influenced by the higher temperatures and pressures developed in the cracking system.

It was explained that the rapid travel of the flame produces knocking on account of the development of premature pressure.

While in general, antiknock gasoline does not give increased mileage, the fact that a car may not be functioning properly on account of the knock, would not give the maximum mileage with the fuel that it would otherwise possess. The knocking also accelerates deterioration of the metal because of premature crystallization.

The laboratory methods for indicating the antiknock value of gasolines includes treatment with sulphuric acid. By measuring the activity of the sulphuric acid on different gasolines, the degree of antiknock may be obtained. The so-called "bouncing pin method" as developed by the General Motors Research Laboratories was described. This method for testing the antiknock value includes a test in a modified Delco engine. A pin is inserted above the cylinder and a knock fuel will cause this pin to bounce or raise so as to complete an electrical connection. The electricity acts on a solution setting free a gas which may be measured and thus show according to the volume produced the extent of knocking. If no gas were produced there would be no knocking and therefore the gasolines have a high antiknock value.

Doctor Francis Leads Discussion

The discussion of Mr. Gardner's paper was led by Dr. C. K. Francis, technical editor of The Oil and Gas Journal, who called attention to the various theories including radiation, absorption of electrons, and chemical properties which have been proposed as explanations for the behavior of antiknock compounds. The chemical properties of the crude control, the degree of concentration of any antiknock compound that may be produced in the gasoline from the pressure stills. Cracked gasoline from Pennsylvania crude will not have the same concentration of antiknock substances as will Mid-Continent and Gulf Coast gasolint produced from the crudes of these sections.

The standard methods for treating cracked gasolines for color and corrosion also removed the greater part of the antiknock substances present in the raw gasoline. A much better gasoline, so far as its behavior in a motor is concerned, would be obtained if the gasoline were not treated. The absence of color, while desirable from the standpoint of appearance, frequently indicates an absence of desirable antiknock compounds.

The Coffeyville meeting was the fifth that has been held in the State since the first of the year. Others will be held from time to time. The next convention city has not been designated. It probably will be in the northeast part of the State.

SITUATION IN HANDS OF SEMINOLE OPERATORS

(Continued from Page 37)

to save the market from a severe tumble.

It is reasoned that a stable price for crude—a price commensurate with the greatly increased operating and development costs in the Mid-Continent deep sand areas—acts as a balance wheel all along the line; that it steadies refinery operations, keeps down the excessive manufacture of gasoline; keeps down gasoline stocks, yet delivers the product to the ultimate consumer at a fair price.

Seminole producers in the early stages of the development of that field saw what was ahead of them if they followed the old custom of rushing operations and drilling the field in the shortest possible time. It meant waste and a demoralized market which would affect the whole production structure from the most easterly field to the Pacific Coast. So they joined in a movement to produce their oil carefully and without haste, appointing an umpire to settle all differences. Thus far the plan has worked out admirably.

They also made provisions against future waste of oil by a program of storage tank building, which has grown since its inception.

There is no way of estimating the bigness of Seminole as a producing field, but the recent completion of a well in the Earlsboro area, west of the Seminole district, has made the general territory look good to the average operator. There seems no doubt that a vast quantity of oil will be taken out of the territory and that any storage program put through at this time will not come amiss in the future when conditions warrant the further development of the big field.

There is no denying the fact that the crude situation is critical. The action of several of the big companies in revising their schedule, generally reducing prices, especially on the higher grade oils, is proof of that. But this action has not been followed by some powerful purchasing organizations nor by the smaller buyers. How long the standpatters can hang on may depend upon the support they get from the producers in Seminole—the one field that threatens to upset the price structure.

Big Buyers View Seminole

Representatives of two of the largest Mid-Continent crude oil purchasing companies visited the Seminole Field this week to get a close-up view of the situation there. President Nelson Moody and Vice President and General Manager D. H. Kelsey of the Prairie Oil & Gas Co. motored down from Tulsa on Monday, and a party of Sinclair Crude Oil Purchasing Co. officials, headed by H. F. Sinclair, chairman of the board of directors of the Sinclair Consolidated Oil Corp., who had come out to Oklahoma in a special Pullman car went down to Holdenville over the Frisco Railroad and motored to the field from that point on Tuesday.

The visit of these oil buyers, whose companies did not meet the recent cuts in crude oil, is said to have been prompted primarily by their desire to get first hand information on the crude storage program. The future of the crude market may hinge on the result of what they learn.

ASK DRILLING EXTENSION

At a meeting of the Osage Oil and Gas Lessee's Association held in the rooms of the Mid-Continent Oil and Gas Association, at Tulsa, Okla., a letter was forwarded to J. George Wright, superintendent of the Osage Indian Agency, requesting an extension of the drilling time of one year which is contained in the present lease forms.

The reason given for requesting this extension is the present overproduction which is troubling the Mid-Continent Field. The meeting was called by Burdett Blue, president of the association.

PIPELINE RUNS BY COUNTIES

(Continued from Page 47)

CRANE-UPTON

Company—	Farm—	Wells	Prod.	Dy Av.	Run by—
Dixie Oil Co.:	Burleson	8	15,225	491.1	Kay County Gas
	Hughes	7	81,028	2,613.7	Kay County Gas
Wm. H. Dunning, Jr.:	Crier-McElroy	1	9,552	321	Humble
Gulf Prod. Co.:	Baker	3	1,763	56.8	Kay County
	Crier-McElroy	3	13,367	431.1	Humble
	J. T. McElroy	2	5,567	179.5	Humble
Independent O. & G.:	Burleson	4	11,902	384.0	Kay County
	Hughes	1			
	Taylor	1			
	Wooley	4			
		9	33,035	1,065.6	Kay County
Marland Oil Co.:	Burleson	32			
	Burleson-A	3			
	Estep	2			
	Sanger	15			
		52	88,803	2,868.7	Kay County
	Benton Land	1			
	Durham	1			
	Hughes-B	1			
	Hughes-C	3			
	Hughes-D	1			
	Hughes-Gibbs	1			
	Hughes-Zoch	2			
		10	30,727	991.1	Kay County
McMan Oil & Gas:	Baker	1	209	6.7	Kay County
Magnolia Pet. Co.:	Church-Fields	2	1,599	51.5	Humble
	O'Keefe-University	3	1,666	53.7	Humble
Humble Oil & Ref.:	Burleson	4	4,512	145.5	Humble
	Ricker-Dodson	1	789	25.4	Humble
Republic Prod. Co.:	Baker	4	3,110	100.2	Kay County
Roxana Pet. Corp.:	Bowen	3			
	Estep	1			
		4	19,727	636.3	Kay County
	Hughes	1	4,566	147.7	Kay County
Texas Pacific C. & O.:	Sherk	1	1,747	56.3	Humble
The Texas Company:	Burleson	4			
	King (Crane Co.)	4			
	King (Upton Co.)	4			
	Union Land-F	1			
		13	25,494	822.3	Kay County
	King (Crane Co.)	4	7,401	238.7	The Texas P.L. Co.
Tidal Oil Co.:	University	1	736	23.7	Kay County
Sun Oil Co.:	Burleson	6	7,611	245.5	Humble
Wentz Oil Corp.:	Estep	1	2,800	90.3	Humble P.L. Co.

CROCKETT COUNTY

Cromwell:	Powell	5	9,710	313.2	Kay County
Gulf Prod. Co.:	Powell-A	1	1,229	39.6	Humble
	Powell-B	4	3,556	114.6	Humble
J. K. Hughes Dev.:	Powell-A	1	1,321	42.6	Humble
	Powell-B	1	1,743	56.2	Humble
Humble & Marland:	Powell	10	5,306	171.7	Humble
			4,806	155.0	Humble
	Sarg	1	405	13.0	Kay County
Republic Prod. Co.:	Powell	1	205	6.6	Humble
Roxana Pet. Corp.:	Powell	1	631	20.3	Kay County
	Total	25	28,912		

HOWARD COUNTY

Fred Hyer:	Clay	1	155	5.0	Storage
Choate & Henshaw:		1	135	4.5	Storage
Lockhart & Co.:	Chalk	2	1,325	42.7	Kay County
	Chalk	6	8,596	277.2	Magnolia
Marland Oil Co.:	Chalk	3	4,023	129.7	Kay County
	Total	13	14,234		

REAGAN COUNTY

Big Lake Oil Co.:	University	87	480,760	15,506	Reagan Co. Pur.
Texon O. & L. Co.:	University, Group 1	62	328,300	10,590	
	Total	149	809,060		

WEST TEXAS WILDCATS

(Continued From Page 47)

Prairie O. & G. Co.'s No. 2 University, SE NE NW, Sec. 39, Blk. 30, University Sur. — Top lime 2,930 ft., top pay 2,995 ft., drilling 2,995 ft.

Prairie O. & G. Co.'s No. 3 University — Rig.

Prairie O. & G. Co.'s No. 1 Colette, SW SW, Sec. 36, Blk. 31, University Sur. — Spudding 220 ft.

Ben D. Simon & Cromwell's No. 1 Brookfield, C SE, Sec. 23, Blk. 6, H. & T. C. Sur. — Fishing tools 2,210 ft.

Simms Oil & Atlantic O. P. Co.'s No. 1 University, NE SE, Sec. 39, Blk. 30, Univ. Sur. — Drilling 1,990 ft., potash and gyp.

The Texas Company's No. 10 H. M. King, NW Sec. 35, Blk. X, C. C. S. D. & R. G. N. G. Sur. — Top pay 2,306 ft., drilling 2,332 ft.

The Texas Company's No. 11 H. M. King, Sec. 85, Blk. X, C. C. S. D. & R. G. N. G. Sur. — Drilling 2,250 ft.

The Texas Company's No. 12 H. M. King, Sec. 85, Blk. X, C. C. S. D. & R. G. N. G. Sur. — Top salt 660 ft., drilling 1,520 ft.

Texas Dev. Co.'s No. 1 Cowden — Shut down 3,820 ft.

Tidal Oil Co.'s No. 2-B University, SW SE, Sec. 34, Blk. 30, University Sur. — Top salt 1,134 ft., drilling 1,770 ft.

Tidal Oil Co.'s No. 1-C University, NW SE, Sec. 34, Blk. 30, University Sur. — Drilling 2,485 ft.

Zweifel and others' No. 1 Cowden — Drilling red 810 ft.

CROCKETT COUNTY

Anchor Oil Co. (Cumberland) No. 1 Couch, C NE, Sec. 18, Blk. QR, D. & S.E. T. R. R. Sur. — Shut down 2,025 ft.

Cranfill Bros. Oil Co.'s No. 1 Harris, C NE, Sec. 4, Blk. 3, Washington County Sur. — Drilling 700 ft.

Gulf Prod. Co.'s No. 1-D L. P. Powell, Sec. 62, Blk. BB, G. C. & S. F. Sur. — Top lime 2,585 ft., total depth 2,590 ft., estimated 1 bbl. water every 5 hours.

Humble O. & R. Co.'s No. 1-B Powell, Sec. 63, Blk. BB, E. L. & R. Sur. — Drilling 2,445 ft.

J. K. Hughes' No. 2-A Powell, Sec. 2, Blk. BB-2, G. C. & S. F. Sur. — Drilling 2,615 ft.

J. K. Hughes' No. 3-A Powell, Sec. 2, Blk. BB-2, N. A. Miller Sur. — Drilling 2,525 ft.

J. K. Hughes' No. 2-B Powell, Sec. 63, E. L. & R. R. Sur. — Fishing tools 2,530 ft.

Magnolia Pet. Co.'s No. 2 Shannon, SE SE Sec. 9, Blk. BB, E. L. R. R. Sur. — Shut down 200 ft., drilling water well.

William Shaffer and others' No. 1 University, C SE SE Sec. 9, Blk. 47, University Sur. — Drilling 2,285 ft.

Ben Simon and others' No. 1 Shannon, C SW Sec. 10, Blk. YZ, E. L. R. R. Sur. — Shut down 3,118 ft., contract complete.

J. D. Young & Cromwell's No. 1 Shannon, SE NE Sec. 4, Blk. 10 — Drilling 600 ft.

Young & Cromwell's No. 1 University — Drilling 510 ft.

CULBERSON COUNTY

James H. Gardner and others' No. 1 Radford, C SE Sec. 29, Blk. 62, Pub. Sch. Ld. Sur. — Rig.

Plymouth Oil Co.'s (Big Lake) No. 1 Derrick, C W half Sec. 44, Blk. 45, Pub. Sch. Ld. Sur. — Running 8-in. 1,945 ft.

Pure Oil Co.'s No. 1 Kloh & Rumsey — Drilling 1,200 ft.

DICKENS COUNTY

Bowser Mickels and others' No. 1 Pitchford ranch — Drilling 2,600 ft.

Montray Oil Co. and Clancey English's No. 1 Blackwell — Drilling 1,000 ft.

Montray Oil Co. and Clay English's No. 1 Jones — Drilling 1,650 ft.

ECTOR COUNTY

J. S. Cosden and others' No. 1-A G. W. Connell, C NW Sec. 13, Blk. B-16, Pub. Sch. Ld. Sur. — Drilling 3,640 ft., 1,000 ft. oil in hole, water practically exhausted Nov. 10 swabbed 150 bbls. and swabbed down.

The Exploration Co.'s No. 1 Kloh & Rumsey, CEL SE Sec. 39, Blk. 45, Pub. Sch. Ld. Sur. — Drilling 4,005 ft.

The Exploration Co.'s No. 1 J. D. Slator, C SW Sec. 10, Blk. 45, T. & P. Twp. 1-S Sur. — Drilling 410 ft.

Llano Oil Co.'s No. 1 E. P. Cowden, Sec. 5, Blk. B-14, Public Sch. Sur. — Drilling 3,900 ft.

FISHER COUNTY

Baldridge, Dillard & Clark's No. 1 Weler, George Great Sur. No. 221 — Drilling 480 ft.

Gibson & Johnson's No. 1 J. W. Wheeler, Robert Spiers Sur. No. 283 — Location.

Ideal Oil Co.'s No. 1 W. F. Martin, NW NW Sec. 113, Blk. 1, T. & T. C. Sur. — Plugging 3,495 ft.

R. W. Raney's No. 1 Mallerry, Sec. 56, T. & P. Sur. — Building standard rig to drill deeper, total depth 1,550 ft.

GARZA COUNTY

Deep Rock Oil Co.'s No. 1 S. M. Swenson, C Sec. 26, Blk. 2, H. & G. N. Sur. — Shut down 3,200 ft.

GLASSCOCK COUNTY

Mascho & Marland Oil Co.'s No. 1 Calder, C NW Sec. 20, Blk. 32, T. & P. Twp. 4-S Sur. — Drilling 2,252 ft.

Plateau Oil Co.'s No. 1 L. S. Bell, C SW Sec. 11, Blk. 35, T. & P. Twp. 5-C Sur. — Drilling 2,270 ft.

HOCKLEY COUNTY

El Captan Oil Co.'s No. 1 Ellwood — Drilling 1,600 ft.

HOWARD COUNTY

Gulf Production Co.'s No. 1 Otis Chalk — Running 10-inch 875 ft.

Humble Oil & Refining Co.'s No. 1 Doubbitt, NW NW Sec. 123, Blk. 29, W. & N. W. Sur. — Underreaming casing 975 ft.

Lockhart & Co.'s No. 1 Roberts, SW SW Sec. 97, Blk. 25, W. & N. W. Sur. — Drilling 1,425 ft.

Lockhart & Co.'s No. 1 Hyman (Scott), Sec. 36, Blk. 29, W. & N. W. Sur. — Drilling 2,540 ft.

Reeves, Apperman and others' No. 1 H. R. Clay, NE SE SE Sec. 126, Blk. 29, W. & N. W. Sur. — Drilling 1,250 ft.

JEFF DAVIS COUNTY

Humble Oil & Ref. Co.'s No. 1 W. W. McCutcheon, Sec. 31, Blk. 344, G. C. & S. F. Sur. — Drilling 3,370 ft.

J. K. Hughes Dev. Co.'s No. 1 J. Z. Means, M. Robertson-3 Sur. — Fishing tools 640 ft.

JONES COUNTY

Atlantic Oil Prod. Co. and others' No. 1 Howell, NW cor. Sec. 20, Blk. 19, T. & P. Sur. — Drilling 1,290 ft.

Bateman & Campbell's No. 1 Southard, C NW NW Sec. 43, Deaf & Dumb Asylum Lands Sur. — Rig completed.

Garland & Diamond's No. 1 E. D. Glynn, SE cor. Sec. 18, Deaf & Dumb Asylum Lands Sur. — Location.

Gibson & Johnson's No. 1 Mrs. J. V. Wright, SW cor. Sec. 13, Blk. 14, T. & P. Sur. — Swedging 10-in. 1,300 ft.

Gillette & Hickey's No. 1 S. W. King, Manuel Bueno Sur., No. 197 — Pulled in mast at 1,735 ft.

Gillette & Hickey's No. 1 M. E. Young — Drilling 1,065 ft.

Grisham & Hunter & Wildman's No. 1 George B. Birchfield, Harrison Co. School Land — Moving in material.

Grisham & Hunter & Wildman's No. 1 Williams, Harrison Co. School Land — Moving in material.

Hurley Oil Co. and others' No. 1 J. Sears — Drilling 2,230 ft.

Hutson & Weaver's No. 1 Smith, Sec. 51, Blk. 18, T. & P. Sur. — Building rig.

Marland Oil Co.'s No. 1 S. R. Cox, NW cor. Sec. 72, Blk. 14, T. & P. Sur. — Fishing for tools 2,410 ft.

Marland Oil Co.'s No. 1 Mason, SE cor. NE Sec. 18, Blk. 19, T. & P. Sur. — Drilling 1,210 ft.

Marland Oil Co.'s No. 2 Mason, NE cor. SE NE Sec. 18, Blk 19, T. & P. Sur. — Setting 15-inch 555 ft.

Marland Oil Co.'s No. 3 Mason — Building rig.

Midwest Exploration Co.'s No. 1 Thornton, NE cor. SE Sec. 18, Blk. 19, T. & P. Sur. — Flowing.

Victor H. Martin's No. 1 Culbertson, Vincent Bell Sur., No. 6 — Shut down 445 ft. for orders.

Muse & Robertson's No. 1 Manly, C S½ S½ Sec. 35, Blk. 14, T. & P. Sur. — Spudding.

Phillips Pet. Co.'s No. 1 Tessie, NW cor. SW Sec. 19, Blk. 19, T. & P. Sur. — Drilling 2,420 ft.

Phillips Pet. Co.'s No. 2 Winter, NW cor. SW NW Sec. 19, Blk. 19, T. & P. Sur. — Drilling 825 ft.

Shaw & Rathke and others' No. 1 Bristow — Shut down 500 ft.

Leigh Taliaferro's No. 1 King (T. L. Blanton), C SE N Scott Sur., No. 15 — Dry and abandoned at 2,505 ft.

J. C. Yancey and others' No. 1 Herndon — Spudded and shut down.

J. C. Yancey and others' No. 1 Rowell — Spudded and shut down.

World Oil Co. and others' No. 1 Staniforth, C S½ Sec. 15, Blk. 19, T. & P. Sur. — Rigging up.

Zeigler and others' No. 1 Reeves, C SE SE Sec. 164, B. B. B. & C. Sur. — Shut down 610 ft. for orders.

KENT COUNTY

The Texas Company's No. 1 Barron, C NW Sec. 131, Blk. G, W. & N. W. Sur. — Drilling 4,382 ft.

KIMBLE COUNTY

Dixie Oil Co.'s No. 1 Harrison, 900 ft. N NE 40 cor. S 300 ft., No. 80 Sur. — Drilling 1,635 ft.

LAMB COUNTY

E. C. Marrs et al's No. 1 Yellowhouse — Drilling 1,800 ft.

LOVING COUNTY

Lockhart & Co.'s No. 1 R. L. Allen, NE NW Sec. 82, Blk. 33, H. & T. C. Sur. — Top lime 4,211 ft., total depth 4,230 ft., 1,200 ft. oil in hole.

LYNN COUNTY

The Hart Oil Corp.'s No. 1 C. O. Edwards, NW NW Sec. 5, Blk. 2 — Shut down 1,400 ft.

MENARD COUNTY

J. R. Lewis and others' No. 1 White, C NW Sec. 8, J. Mabrey Sur. — Shut down 180 ft.

MITCHELL COUNTY

Teas & Stivers' No. 1 Pardee, SE SE Sec. 85, Blk. 97, H. & T. C. Sur. — Skidded rig 20 ft. west, total depth 485 ft.

B. H. Cogdell's No. 1-C F. E. McKenzie, WL NW NE Sec. 226, Blk. 1-A, H. & T. C. Sur. — Shut down 125 ft.

Owen & Sloan's No. 1 C. P. Conoway, C NE Sec. 30, Blk. 28, Twp. 1-S Sur. — Slight show of oil 3,183-85 ft., shut down 3,205 ft., may deepen.

Magnolia Petroleum Co.'s No. 2 Foster, NE NE Sec. 17, Blk. 29, T. & P. Sur. — Skidded rig 30 ft. north, total depth 1,510 ft.

Magnolia Petroleum Co.'s No. 1 G. W. Womack — Fishing tools 3,106 ft.

Morrison & Thompson's No. 1 Griffin — Drilling 530 ft.

B. E. Waler and others' No. 1 J. E. Dollen — Spudded and shut down.

F. P. Zoch and others' No. 1 J. J. Ford, C SW Sec. 130, Blk. 3, H. & G. N. Sur. — Shut down 3,082 ft., contract completed.

NOLAN COUNTY

Zweifel and others' No. 1 Longbotham — Spudded and shut down.

PECOS COUNTY

Benedum & Trees' No. 1 J. C. Trees, C Sec. 50, Blk. 8 — Cleaning out 710 ft.

Buell and others' No. 1 Hagan, C N half NE Sec. 89, Blk. OW, G. C. & S. F. Sur. — Cleaning out 575 ft.

Kemper Kimberlin's No. 1 Blackman, C NW Sec. 24, Blk. 3, H. & T. C. Sur. — Spudded and shut down 100 ft.

Mid-Kansas-Transcontinental's No. 1 Yates, 2,900 ft. W of SW cor. Sec. 60, Blk. 1, I. & G. N. Sur. — Top lime 970 ft., top pay 990-97 ft.; from Nov. 3 to 9 well averaged 111 bbls.; gas steady, no water; mudding to shut in temporarily.

Quinby Oil Co.'s No. 1 Townsite, Sec. 1, Blk. 267, Client Addition Sur. — Underreaming 6-in., 3,307 ft.

Quinby Oil Co.'s No. 2 Bennett, C NW Sec. 592, Blk. 105, G. C. & S. F. Sur. — Drilling 470 ft.

PRESIDIO COUNTY

Headlock & Miller's No. 1 Tootle estate, SE SW Sec. 123, Blk. 5, D. P. R. R. Sur. — Shut down 2,340 ft.

REAGAN COUNTY

California Co.'s No. 3 University, SE NW Sec. 14, Blk. 7, University Sur. ..... Drilling 1,206 ft.
H. D. Camp and others' No. 1 University, CWL NE NW Sec. 34, Blk. 11, University Sur. ..... Shut down 2,786 ft.
Hiawatha Oil Co.'s No. 1 University ..... Spudded 100 ft.
Marland-Texon Oil Co.'s No. 1 Sawyer, SE NE Sec. 154, Blk. 1, T. & P. Sur. ..... Drilling 3,180 ft.
Moody Oil Corp.'s No. 1 Sawyer, C Sec. 150, Blk. 1, T. & P. Sur. ..... Top salt 1,240 ft., fishing bailer 1,450 ft.
Roxana Petroleum Corp.'s No. 1 Boyd, NE SW Sec. 15, Blk. F, University Sur. ..... Plugging 3,174 ft.

REEVES COUNTY

Deep Rock Oil Co.'s No. 1 Caldwell ..... Rigging up.
Grisham & Hunter's No. 1 State Land, C NW NW Sec. 22, Blk. 55, Pub. Sch. Ld. Sur. ..... Drilling 2,300 ft.
World Oil Co.'s No. 1 Biggs, C SE Sec. 65, Blk. 112, Pub. Sch. Ld. Sur, ... Drilling 720 ft.

RUNNELS COUNTY

Bell & Moore's No. 1 W. W. King ..... Location.
Red Bank Oil Co.'s No. 1 Fowler, CWL NW Sec. 514, J. H. Wills Sur. ..... Shut down 1,835 ft.
Frank Yaes' No. 1 R. M. McMillan ..... Moving in material.
F. P. Zoch and others' No. 1 Bruce ..... Cleaning out 1,530 ft.

SCHLEICHER COUNTY

Beavers & Leath and others' No. 1 J. A. and W. T. Whitten, C NW Sec. 35, Blk. 11, T. O. Sur. ..... Spudded and shut down.
Cope & Dalton's No. 1 Sol Meyer, C SW Sec. 99, Blk. 5, E. L. & R. R. Sur. ..... Shut down 2,570 ft.

SCURRY COUNTY

Northwest Co.'s No. 1 T. C. Stinson ..... Drilling 1,455 ft.

STERLING COUNTY

California Co.'s No. 1 Davis, SW NE Sec. 255, Blk. 2, H. & T. C. Sur. ..... Drilling 1,500 ft.
Co-Operative Lease & Dev. Co.'s No. 1-A E. W. Douthitt, SW SE SE Sec. 173, Blk. 29, W. & N. W. Sur. ..... Shut down for orders 3,232 ft.
The Exploration Co.'s No. 1 C. A. Boone, C NW Sec. 21, Blk. 11, S. P. Sur. ..... Plugging to abandon at 3,202 ft.
J. W. Gilliam's No. 1 Clark ..... Spudded and shut down.

TAYLOR COUNTY

City of Abilene's No. 1 fee ..... Drilling 2,010 ft.
Gibson & Johnson's No. 1 Haines & Hamilton, NE cor. W½ SE Sec. 38 ..... Rigging up.
Grisham & Hunter's No. 1 D. D. Huddleston, CWL Lot 29, League 146, Grimes Co. School Land ..... Moving in material.
Noodle Creek Oil Co.'s No. 1 Mrs. Alice Rose ... Location.
Sanger Oil & Refining Co.'s No. 1 R. E. Anderson ..... Shut down 1,916 ft.
Sanger Oil & Refining Co.'s No. 2 R. E. Anderson ..... Plugging to abandon 2,290 ft.
Sanger Oil & Refining Co.'s No. 1 Cox ..... Sweeting 10-in. casing 1,800 ft.
Sanger Oil & Refining Co.'s No. 1 Gillesnie ... Rigging up.

TERRELL COUNTY

Sun Oil Co.'s No. 1 Scott, C NE Sec. 12, Blk. R, T. C. Sur. ..... Drilling 2,850 ft.
E. T. Williams and others' No. 1 Robertson, C NE Sec. 71, Blk. D-10, T. C. Sur. ..... Shut down for underreaming 2,800 ft., hole full of water.

TERRY COUNTY

Kingsland Oil & Potash Co.'s No. 1 Brownsfield ..... Spudded and shut down.

TOM GREEN COUNTY

M. D. Bryant et al's No. 1 Llano Co. Sch. Ld., SE NW, Sec. 13, Llano Co. Sch. Ld. Sur. ..... Drilling out cement 2,980 ft.
Texon Oil & Land-Marland's No. 2 Sorrell, C S half Sec. 265, Christian Mance Sur. ..... Underreaming casing 1,110 ft., total depth 1,290 ft.
World Oil Co.'s No. 1 Pulliam, NW SE SW Sec. 18, Blk. 4, H. & T. C. Sur. ..... Shut down for repairs at 3,580 ft.

UPTON COUNTY

Atlantic Oil Prod. and others' No. 1 Sherk, NE cor. Sec. 35, Blk. 1, M-K-T Sur. ..... Drilling 1,665 ft.
Dixie Oil Co.'s No. 9 Burleson, Sec. 100, T. C. Jones Sur. ..... Plugging to abandon 2,350 ft.
Dixie Oil Co.'s No. 10 Burleson, Sec. 100, T. C. Jones Sur. ..... Drilling 2,355 ft.
Dixie Oil Co.'s No. 11 Burleson, Sec. 11, T. C. Jones Sur. ..... Top salt 555 ft., drilling 1,485 ft.
Dixie Oil Co.'s No. 12 Burleson .....
Dixie Oil Co.'s No. 8 Hughes, Sec. 4, William Teer Sur. ..... Top pay 2,066 ft., drilling 2,095 ft., 800 ft. oil in hole.
Dixie Oil Co.'s No. 9 Hughes, Sec. 4, William Teer Sur. ..... Drilling 2,000 ft.
Dixie Oil Co.'s No. 10 Hughes, Sec. 4, William Teer Sur. ..... Top salt 460 ft., drilling 1,510 ft.
Gulf Prod. Co.'s No. 2-C J. T. McElroy, C SW Sec. 155, Blk. E ..... Moving in rig.
Gulf Prod. Co.'s No. 1-C J. T. McElroy, C NW Sec. 134, Blk. E ..... Moving in rig.
Gulf Production Co.'s No. 1 J. H. Sherk-E, SW cor. NE Sec. 35, Blk. 1, M-K-T Sur. ..... Top salt 758 ft., top lime 2,148 ft., drilling 2,240 ft.
Hults and others' No. 1 Giddings, C NW Sub. Sec. 12, Wash County R. R. Sur. ..... Spudded 10-in. and shut down for fuel.
Humble Oil & Refining Co.'s No. 5 A. S. Burleson, NW NW Sec. 100, T. C. Jones Sur. ..... Fishing tools 2,220 ft.
Independent Oil & Gas Co.'s No. 5 A. S. Burleson, Sec. 100, T. C. Jones Sur. ..... Top salt 597 ft., small show of oil 2,266 ft., shut down 2,300 ft.
Independent Oil & Gas Co.'s No. 6 A. S. Burleson, Sec. 100, T. C. Jones Sur. ..... Shut down 360 ft.
Independent Oil & Gas Co.'s No. 5 Emma Wooley, Blk. 3, G. C. & S. F. Sur. ..... Top salt 495 ft., drilling 1,500 ft.
Independent Oil & Gas Co.'s No. 6 Emma Wooley, Blk. 3, G. C. & S. F. Sur. ..... Spudding.
Independent Oil & Gas Co.'s No. 7 Emma Wooley, Blk. 3, G. C. & S. F. Sur. ..... Drilling 375 ft.
Independent Oil & Gas Co.'s No. 8 Emma Wooley, Blk. 3, G. C. & S. F. Sur. ..... Drilling 450 ft.
Kirkwood and others' No. 1 Rankin, Sec. 100, T. C. Jones Sur. ..... Fishing bailer 3,950 ft.; set 6-in. at 3,820 ft.
Marland Oil Co.'s No. 1 Estep, Sec. 18, Blk. 3, M-K-T Sur. ..... Total depth 2,396 ft., plugged back to 2,335 ft., shot 100 qts. 2,259-85 ft. Bridged and cleaning out.
Marland Oil Co.'s No 2 Estep, Sec. 18, Blk. 3, M-K-T Sur. ..... Top pay 2,260 ft., total depth 2,364 ft., plugged back to 2,325 ft.
Marland Oil Co.'s No. 4 Estep, Sec. 18, Blk. 3. Total depth 2,272 ft., plugged back to 2,319 ft., shot 40 qts. 2,260-70 ft., cleaning out.
Marland Oil Co.'s No. 7 Estep, Sec. 18, Blk. 3, M-K-T Sur. ..... 2,330 ft. total depth, plugged back to 2,326 ft., shot 100 qts. 2,300-23 ft., top pay 2,300 ft., 1,500 ft. oil in hole.
Marland Oil Co.'s No. 8 Estep, Sec. 18, Blk. 3, M-K-T Sur. ..... Fishing tools 2,190 ft.
Marland Oil Co.'s No. 9 Estep ..... Rig.
Marland Oil Co. No. 3 Burleson ..... Total depth 2,168 ft., straightening hole.
Marland Oil Co.'s No. 1 Shirley, SW SW Sec. 10, Blk. 3½, C. C. S. D. & R. G. N. G. Sur. ... Drilling 1,412 ft.
Marland Oil Co.'s No. 1 Powell ..... Top salt 749 ft., drilling 1,200 ft.
Marland Oil Co.'s No. 1 Reese ..... Straightening hole 585 ft.
Marland Oil Co. & Texon's No. 1 Halff, C SE Sec. 62, Blk. Y, C. C. S. D. & R. G. N. G. Sur. ..... Drilling 3,700 ft.
Rio Grande Oil Co.'s No. 1 Estep ..... Drilling 1,900 ft.
Roxana Petroleum Corp.'s No. 4 Della Bowen .. Rigging up.
Roxana Petroleum Corp.'s No. 3 Hughes, Sec. 4, William Teer Sur. ..... Drilling 2,015 ft.
Roxana Petroleum Corp.'s No. 2 Estep, SE cor. SW Sec. 18, Blk. 3, M-K-T Sur. ..... Fishing tools 2,335 ft.
Roxana Petroleum Corp.'s No. 3 Estep, C NE SE Sec. 18, Blk. 3, M-K-T Sur. ..... Top pay 2,356 ft., drilling 2,363 ft., flowing 60 bbls.
Roxana Petroleum Corp.'s No. 4 Estep ..... Rig up and shut down.
Roxana Petroleum Corp.'s No. 5 Estep ..... Rig.
Sartain & Davis No. 1 Bull, SW NE Sec. 48, Blk. 41, T. & P. Sur. ..... Shut down 2,460 ft.
Skelly Oil Co.'s No. 1 Jones ..... Fishing casing 3,595 ft.
Texas Pacific C. & O. Co.'s No. 1 John Lane ... Moving in material.
Texas Pacific Coal & Oil Co.'s No. 3 Sherk, Sec. 5, Blk. 3, M-K-T Sur. ..... Drilling 1,900 ft.
Texon Oil & Land Co.'s No. 1 Sherk, Sec. 35, Blk. 1, M-K-T Sur. ..... Drilling 350 ft.
Johnston & McCamey & Union Land Co.'s No. 4 Union Land Co., SW cor. Sec. 21, Blk. 1, M-K-T Sur. ..... Shut down 200 ft. for water.

VAL VERDE COUNTY

A. Blume and others' No. 1 Moore estate, Sec. 183, J. Mitchell Sur. ..... Cleaning out 2,675 ft.
Curso Williams' No. 1 Holman, NE NE Sec. 5, Blk. N, G. H. & S. A. Sur. ..... Drilling 685 ft.
Douglas Oil Co.'s No. 1 Sellars ..... Spudded and shut down 150 ft.
East Del Rio Oil Co.'s No. 1 Russell, E cor. Sec. 183, Del Rio Town Sur. ..... Drilling 3,020 ft.
Hiawatha Oil Co.'s No. 1 Sellers, C Sec. 1,031, Blk. A, I. & G. N. Sur. ..... Drilling 310 ft.
Independent Operators' No. 1 Whitehead, SE SE Sec. 30, Blk. 4, I. & G. N. Sur. ..... Shut down 3,750 ft.
Transcontinental Oil Co.'s No. 1 W. S. Stevenson, NE SE NE Sec. 3, Blk. 4, I. & G. N. Sur. ..... Fishing for tools 2,210 ft.

WINKLER COUNTY

McCullough Oil Co.'s No. 1 Tobe Martin, CEL Sec. 20, Blk. B-12 ..... Rig.
R. S. Matthews and others' No. 1 State, C Sec. 7, Blk. A-57, Pub. Sch. Lnd. Sur. ..... Straightreaming 10-inch 1,225 ft., hole full salt water at 1,110 ft.
F. P. Zoch and others' No. 1 John Sealy, C SW Sec. 73, Blk. A, Pub. Sch. Ld. Sur. ..... Shut down for 20-in. casing 100 ft.
L. D. Ladd, Hill and others' No. 1 Amburgey, C Sec. 24, Blk. B-7, Pub. Sch. Ld. Sur. ..... Fishing tools 700 ft.
Westbrook & Eastland Oil Co.'s No. 1 Hendricks, SE SE Sec. 42, Blk. B-5, Pub. Sch. Ld. Sur. ..... Top pay 2,965 ft., total depth 3,005 ft.; Nov. 5 flowed 120 bbls.; Nov. 6, 90 bbls.; Nov. 7, 120 bbls.; Nov. 8, 125 bbls.; Nov. 9, 115 bbls.; Nov. 10, 132 bbls.; Nov. 11, 135 bbls.; tests 30 degrees gravity, no water or b.s.

TEXAS PANHANDLE

(Continued from Page 48)

Double Five Oil Co.	1	60	55
Douglas Oil Co. and Cline	1	10	10
Douglas Oil Co.	1	15	15
E. J. Dunnigan	2	290	260
Southwestern Oil & Dev. (was E. J. Dunnigan et al)	2	600	1,440
Echo Oil Co.	3	2,000	1,850
Empire Gas & Fuel Co. .	11	3,600	5,320
Fly-Blackburn Oil Co. ..	2	270	265
Gates Oil Co.	4	400	420
Goldeline Oil Co.	5	250	260
Golding & Phillips	1	10	15
Gopher Oil Co.	1	15	15
Gulf Prod. and Panhandle Ref. Co.	45	7,580	7,000
Gulf Production Co.	29	7,360	7,955
L. R. Hagy	1	5	10
Heywood et al	2	50	45
J. K. Hughes Dev. Co....	17	2,850	2,850
Holmes, Currie & McKnight	3	525	510
W. H. Holmes	1	90	85
Hutchinson Co. Oil Co...	1	0	0
Dan A. Japhet	5	675	620
Julian Pet. Corp. (Canyon)	5	7,400	7,500
J. H. Lenix	1	20	20
Lenix & Patterson	2	0	0
Lucky 10 Oil Co.	3	315	320
Marland Oil Co.	46	12,960	12,105
Midwest Exploration Co..	8	1,600	1,330
Minnehoma Oil Co. and Kistler	1	60	50
McMan Oil & Gas Co.	17	9,075	7,515
McIlroy & Herring	4	600	675
S. D. McIlroy	3	1,075	1,210
S. D. and W. W. McIlroy	7	800	875
McIlroy Brothers et al..	3	450	455
J. H. Middleton	3	60	65
Murchison & Fain	2	550	510
Newby Oil Co.	2	75	65
New Domain Oil Co.	3	170	145
Pantex Oil Co. (Westex)	9	3,000	2,940
Phillips & Heywood ...	2	1,800	1,725
Panhandle Oil Co.	1	175	240
J. R. Phillips	1	10	10
J. R. Phillips et al	3	200	300
Phillips Petroleum Co. ..	91	22,465	32,070
Prairie Oil & Gas Co. ...	31	11,500	10,485
Relief Oil Co.	4	700	655
Henry Riley	1	225	210
Riley & Holmes	2	475	425
Roxana Pet. Corp.	8	1,240	1,135
Ryan Pet. Corp.	3	450	420
Skelly Oil Co.	16	8,000	8,165
Skiatex Oil Co.	4	620	400
J. L. Smith	2	90	135
Smith & Bynum	3	265	250
Spring Creek Oil Co.	5	650	675
Summit Oil Co.	2	270	265
Sunny Jim Oil Co.	5	525	570
Sunburst Oil Co.	2	1,000	1,200
Sunrise Oil Co.	1	0	10
J. A. Swindler & Son ...	1	10	15
Traveler Oil Co.	2	600	425
Triangle Oil Co.	3	2,100	2,900
J. D. Ward	1	40	35
J. D. Ward et al	1	0	0
White Eagle Oil & Ref. Co.	18	3,000	1,630
J. O. Whittington	1	0	0
Total Hutchinson Co....	541	145,440	145,995
Average per well		281	270
Carson County			
Amarillo Oil Co.	1	0	0
American Ref. Co.	8	500	740
Empire Gas & Fuel Co...	1	35	25
Gates Oil Corp.	1	10	10
Gulf Prod. Co.	18	675	675
Marland Oil Co.	13	1,550	1,525
Republic Prod. Co.	1	75	70
Roxana Pet. Corp.	1	200	200
W. W. Silk et al	3	120	170
Skelly Oil Co.	2	80	100
Sunny Jim Oil Co.	2	30	35
The Texas Company	11	325	310
Total Carson County ..	62	3,400	3,860
Average per well		60	62
Gray County			
Empire Gas & Fuel Co. .	2	60	25
Gulf Prod. Co.	8	1,900	2,405
Humble Oil & Ref. Co..	1	0	100
Magnolia Pet. Co.	10	315	245
McMan Oil & Gas Co.	7	740	935
Marland Oil Co.	1	0	60
Phillips Pet. Co.	3	265	400
Prairie Oil & Gas Co., Atlantic & Shamrock	4	810	850
Pure Oil Co.	2	40	200
Roxana Pet. Corp.	1	60	40
The Texas Company	1	0	10
Wilcox-Pampa Oil Co. ...	13	4,800	4,575
Young et al	1	35	35
Total Gray County	54	9,025	9,880
Average per well		205	183
Potter County			
Amarillo Oil Co.	1	35	35
Wheeler County			
Gibson Oil Corp.	2	130	140
Continental Oil Co.	2	160	250
Murchison & Fain	1	0	60
Mid-Kansas Oil & Gas Co.	1	25	35
Midwest Exploration Co..	3	20	20
Total Wheeler Co.....	9	335	505
Average per well.....		42	56
Grand Total Panhandle.	658	158,236	160,275
Average per well.....		282	242
Grand tot. 4 wks. ago.		545	152,105
Av. per well 4 wks. ago			280

PRICES ARE TOO LOW E. L. DOHENY'S OPINION

LOS ANGELES, Calif., Nov. 13.—California refined oil products, particularly gasoline and fuel oil, are selling at prices entirely too low, considering their production and marketing costs, in the opinion of E. L. Doheny. He believes they cannot continue at their present levels, and within a few weeks the Coast should see a restoration of a major portion of the gas price reduction, but not until the market has absorbed the surplus that depressed it.

At the previous price of 20½ cents a gallon the profits were small. At 16½ cents, the prevailing station price in southern California for gasoline, profits have been wiped out. The folly of such a course is apparent, and he believes the good sense of the operators will restore price levels where they belong.

On the California crude situation, Mr. Doheny is more optimistic. He sees no reason for alarm over crude production generally, believing that in it lies the security of the world, and is not worrying over the sharp increase in California crude during October. He is convinced it will maintain its present level for another year, at least. Town-lot drilling at Huntington Beach will result in temporary gain in production partly offset by declines in older pools. He expects the next couple of months will witness the peak and subsequent decline of this area, however.

Ventura Avenue acreage is in strong hands, and though its output is also increasing operators feel no concern, due to demand for this high gravity crude.

Mr. Doheny's opinion on the price situation is quite generally indorsed by Coast marketers, but they do not appear to know how to extricate themselves from the dilemma.

Late Fields

(Continued from Page 46)

production for several counties around. The tools only topped the sand and the importance of the oil showing is problematic.

GULF COAST

HOUSTON, Tex., Nov. 16.—The Gulf Production Co.'s No. 5 Mann, completed at 3,000 feet in the deep sand southwest side of the Spindletop Pool, is flowing 4,000 bbls. initial.

Patillo Higgins will test 9 feet of sand in No. 1 at Barber Hill. The sand is on top of the cap rock at 1,119-28 feet.

Additional late completions in the Gulf Coast include the Gulf Production Co.'s No. 7 Oakwood in the deep sand section at Spindletop, flowing 3,000 bbls. initial at 2,860 feet.

The Humphrey Corp.'s No. 5-B Bashara in the deep sand section on the southwest side at Sour Lake is flowing 500 bbls. at 4,007 feet.

The same corporation's No. 1 Leggett on the northwest side at Pierce Junction is good for 200 bbls. at 3,600 feet. Its No. 3-A Jones has been spudded in and No. 4-A is being placed on the beam. A derrick is standing for No. 2-A Jones. The Navarro Oil Co.'s No. 3 Bender is drilling around 3,780 feet and No. 1 Humble is rigging to work over, as is No. 8 Cain on the east side of the dome.

A gas flash from Bashara's No. 3 Higgins, drilling around 3,100 feet, ignited and destroyed the derrick and rig. The loss is estimated at $20,000 sustained by the contractor drilling the hole.

The Brownie Babbittee Oil Co. has taken over the wildcat test drilled to 2,600 feet on Adams Bayou, 3 miles southwest of Orange. Casing has been set and a sand showing some oil and gas will be tested by the new owners.

The Humble Pipe Line Co. is running an average of 7,500 bbls. per day through its 8-inch line from the Mirando Pools to the terminal at Ingleside on Corpus Christi Bay. It has about 400,000 bbls. in storage at Ingleside and has started moving some of this crude in barges to the Baytown refinery.

TEXAS

FORT WORTH, Tex., Nov. 16.—In Hutchinson County, Lenix & Pattison's No. 2 Smith, Section 11, Block Y, shot with 610 quarts at 2,833-2,956 feet, is flowing 3,500 bbls. It was completed a month ago with 40 bbls. at 2,770-2,840 feet. The Triangle Oil Co.'s No. 4 Smith, Section 6, Block Y, shot with 60 quarts at 2,739-69 feet, is flowing 1,200 bbls., 20 per cent water. Sinclair's No. 1 Williams, Section 43, Block 47, which had a showing of oil and no water, at 3,114-20 feet, will be shot. Southwestern Oil & Development Co.'s No. 1 Johnson, Section 21, deepened to 2,963 feet, is flowing 130 bbls. hourly. Skelly Oil Co.'s No. 8 Johnson, Section 20, shot with 100 quarts at 2,915-55 feet, is flowing 35 bbls. hourly. No. 9, shot with 60 quarts at 2,956-96 feet, is flowing 600 bbls.

In Wheeler County, World Oil Co.'s No. 1 Jackson, Section 11, Block 27, flowed 856 bbls. in the first 24 hours from the granite wash at 2,250-71 feet.

In Collingsworth County Continental Oil Co.'s No. 1 McDowell, Section 107, Block 11, elevation 2,346 feet, has 4,000,000 feet of gas at a depth of 2,115 feet.

In Winkler County, west Texas, Pure Oil Co. made a location for an offset to the Westbrook well in the southwest corner Section 41, Block B-5.

In Upton County Gulf Production Co. took over Dunning's two wildcat tests on the McElroy ranch, Sections 134 and 155, naming them 1-C and 2-C.

OKLAHOMA

The Seminole Field received a brace of jolts when two wells in the field showed poor results. The Tidal-Osage Co.'s No. 2 Harjo, SW cor. SE Section 23-9-6, found five bailers of water at a depth of 4,230 feet. While this has not been identified as the Wilcox sand, it is at a depth which indicates that little may be expected. The well passed through the Viola limestone at 4,228 feet and entered a sandy lime at 4,229 feet, and the water was found at 4,230 feet.

The other disappointment was the Independent-Garland's No. 2 Fixico going dead. This well is one location east of the discovery well, and the 24 hours preceeding its cessation it made better than 7,700 bbls. It is possible that the effect of pinching in the well had caused a clogging up of the sand, and that cleaning out will revive the flow. This well was only drilled 3 feet into the sand. Permission from the umpire to drill the well deeper was sought by the owners.

On Monday of this week, the Seminole Field made 114,430 bbls. and 105,150 bbls. of this was Wilcox oil produced by 35 wells.

The wildcat well of the Tidal Oil Co. and the Gardner Petroleum Co. in Section 12-19-1w, which was flowing 7 bbls. hourly from the deep sand, has showed some traces of water, and the hole is reported to have 2,000 feet of water standing.

West of the Seminole Field, the Gypsy Oil Co.'s No. 1 State Land in Section 16-9-5 flowed 2,605 bbls. on Monday of this week.

In Creek County, W. S. Turman and others' No. 1 Pemberton, NE cor. NW NW Section 8-17-10, was shot in the Wilcox sand with 60 quarts and is flowing 560 bbls. The sand record on this well is 3,005-40 feet.

CRUDE OIL PRICES

(Continued from Page 153)

26° to 26.9°	1.45
27° and above	1.50
Stephens, Ark.—	
Below 28°	1.30
28° to 28.9°	1.40
29° to 29.9°	1.45
30° and above	1.50
Calion (East El Dorado)	1.10
Urania	1.10

Companies posting schedules and dates effective are: Standard Oil Co. of Louisiana, Caddo, Bull Bayou, Crichton, DeSoto, Haynesville, Homer and El Dorado, November 4; Cotton Valley and Smackover, May 18; Bellevue, September 16.

Gulf Refining Co., Calion, May 18; other fields same as Standard Oil Co. of Louisiana.

Atlantic Oil Producing Co., Stephens, Ark., November 5; Homer, Haynesville and El Dorado, November 4; Smackover, May 18.

Magnolia Petroleum Co., Haynesville, Bull Bayou, El Dorado and Pine Island, November 5; Cotton Valley and Smackover, May 18. Pine Island same gravity schedule as El Dorado.

The Texas Company, Caddo, Bull Bayou, DeSoto and Crichton, November 5; Smackover, May 18.

Louisiana Oil Refining Corp., Urania, August 26.

ROCKY MOUNTAIN STATES

Ohio Oil Co.—Midwest Refining Co.
(Effective May 17)

Rock Creek (Wyo.)	$2.25
Salt Creek—	
29° to 29.9°	1.73
30° to 30.9°	1.81
31° to 31.9°	1.89
32° to 32.9°	1.97
33° to 33.9°	2.05
34° to 34.9°	2.13
35° to 35.9°	2.21
36° to 36.9°	2.29
37° and above	2.37
Big Muddy	2.25
Mule Creek	1.75
Grass Creek, light	2.40
Grass Creek, heavy	.90
Elk Basin	2.40
Lance Creek	2.40
Rex Lake	1.45
Byron (February 2)	2.25
Osage	2.40
Lost Soldier (contract)	1.05
Greybull-Torchlight	2.15
Hamilton Dome	1.35
Cat Creek (Mont.)	2.40
Sunburst (Mont.) (October 5)	1.35
Florence (Colo.)	1.60
Artesia	1.95
Hogback (N. Mex.)	2.45

Note: Salt Creek, Osage, Cat Creek, Greybull and Hogback posted by Midwest Refining Co., and the remainder by the Ohio Oil Co. Both companies post Grass Creek light and Elk Basin.

EASTERN STATES

Joseph Seep Purchasing Agency
(Effective July 8)

Penna Grade Oil in New York Transit Lines (New York)	$3.30
Bradford District Oil in National Transit Lines (Pennsylvania)	3.40
Penna Grade Oil in National Transit Lines (Pennsylvania)	3.30
Penna Grade Oil in Southwest Pennsylvania Lines (West Virginia)	3.30
Penna Grade Oil in Eureka Pipe Line Lines (Pennsylvania)	3.25
Penna Grade Oil in Buckeye Pipe Line Lines (Ohio)	3.05
Cabell Grade Oil in Eureka Pipe Line Lines (West Virginia) (May 17)	2.40
Corning Grade Oil in Buckeye Pipe Line Lines (Ohio) (May 22)	2.55
Somerset Medium Oil in Cumberland Pipe Line Lines (Kentucky) (May 17)	2.50
Somerset Light Oil in Cumberland Pipe Line Lines (Kentucky) May 17)	2.65
Ragland Grade Oil in Cumberland Pipe Line Lines (Kentucky) (May 19)	1.25
Gaines (Pennsylvania)	2.85
Keister (Pennsylvania) (October 16)	2.05

MIDDLE WESTERN STATES

Ohio Oil Co.
(Effective May 17)

Lima	$2.48
Wooster	2.55
Illinois	2.37
Indiana	2.25
Princeton	2.37
Plymouth	1.90
Waterloo	1.35
*Western Kentucky (September 9)	2.10
†Cumberland, Barren and Monroe Counties, Kentucky (May 17)	2.65
‡Oil in lines of Stoll Oil Refining Co. in Oil City, Ky.	2.65
‡Oil in lines of Stoll Refining Co. in Tinsley Bottom, Tenn.	2.46
§Oil Springs (Canada) (May 18)	2.95
§Petrolia (Canada) (May 18)	2.88

*Posted by Indian Refining Co.
†Posted by Paragon Development Co.
‡Posted by Stoll Oil Refining Co.
§Posted by Imperial Oil Co., Ltd.

MEXICO

(Effective May 13)

*Tuxpam light (f.o.b. Mex. ports)	$1.35
†Panuco heavy (f.o.b. Mex. ports)	1.15
Tuxpam (New York)	2.15
Panuco (New York)	1.80

*Plus 32.328c tax. †17.631c tax.

HIGHER GRAVITY GASOLINE TIGHTER

(Continued from Page 36)

pected consumption and production of gasoline, are comparatively small and as a result have had no outward firming effect on the spot market. However, the sales may enable the refiners making them to remain out of the market, and with possible increased demand in the near future, a better market situation may follow, at least temporarily.

Another angle to this is that by stocking up on cheap gasoline, these jobbers will be able to stay out of the market when prices become stronger. If any great number of jobbers buy now this might be an important factor in future markets and trends.

Several large refiners already are completely sold up for the remainder of the month which might indicate that if any greater spot demand materializes in the near future gasoline will be extremely scarce. But for the present demand there apparently is still plenty of material from other sources to prevent any strengthening of markets.

Contract Propositions

The uncertain situation, however has not been an inducement for gasoline contracts for next year. Several refiners are in the field with various propositions to jobbers but generally speaking contract making is slower this year than previously. There has been considerable speculation as to what the trend will be in the nature of contracts, many believing that the marginal clauses will have a comeback in popularity. Refiners themselves say they will make any form of contract, either marginal or based on the spot market, providing satisfactory terms can be made.

Due to the fact that tankwagon prices have been comparatively high, jobbers buying on the spot market have been able to make a greater profit than those buying on marginal contracts the past few months, and as a result jobbers may be inclined to avoid such contracts without a greater margin but on the other hand, contracts based on the spot market also have many advantages.

Fuel oils have been perhaps more uncertain than any other Oklahoma refined product. The tight coal situation together with cold weather in the northern states has led many market students to believe that fuel oils would experience another period of keen demand in the near future. As yet, though, no such demand has materialized, except on low cold test products, of which very little is made in the Group. On the whole fuel oils inquiries continue slow and of a routine nature.

Gasoline and Naphtha

As previously mentioned higher gravity gasolines experienced some strengthening during the past week while U. S. Motor (58-60 437) and other lower gravity products suffered additional weakening and price declines. The removal of higher gravity competition from North Texas by export purchases caused Oklahoma refiners to tighten up on their quotations with the result that 64-66 375 material was not available under 10½ cents and the 60-62 400 under 10⅛ cents.

The U. S. Motor gasoline, however, was moving only at an average of 9 cents. A few refiners still were able to get 9¼ cents Tuesday but, on the other hand, some material was being sold for resale at 8¾ cents. There was little spot demand for this grade from most sellers, but as explained, there was some buying for future delivery to fill jobbers' storage.

Good quality naphtha (50-52 450) continued scarce and the few refiners making it were able to get nearly as much for it as for the motor fuel.

Natural Gasolines

Natural gasolines experienced a good demand the greater part of the week. Some sellers found orders slower but generally speaking an excellent volume of business was being moved to northern channels. The demand was not sensational but it was sufficient to keep markets firm and no tendency to shade prices was noticed by Tuesday. Manufacturers were getting a minimum of 9¼ cents for the A grade, 8¾ cents for the B grades and Grade C. Some C was sold for 8½ cents.

Kerosene and Distillates

Kerosene as far as Oklahoma refiners were concerned was unchanged. Some buying for export was reported in North Texas but this was not sufficient to remove any great amount of the surplus material. The average market on 41-43 water white kerosene was from 6½ to 6¾ cents with some sales as much as a quarter of a cent above or below.

Distillates found an improved demand after several weeks of inactivity. The colder weather in the northern states has increased furnace oil sales to such an extent as to cause distributors and jobbers there to look to Oklahoma refiners for additional supplies of distillates. While a week ago 38-40 straw material was available at 5 cents and lower the bottom Tuesday evidently was 5⅛ cents and on the 36-38 grade 4⅞ cents.

Fuel Oil and Gas Oil

The same situation which existed during the week with distillates was true of gas oil and Tuesday there was a much improved outlook for this product. Straight overhead material was in demand for a minimum of 4¼ cents.

The fuel oil situation has been explained. Lower gravities continued inactive, although refiners Tuesday still were able to move some material at last week's quotations. Below 22 gravity fuel was bringing from $1.20 to $1.25, depending on the grade; 22-26 fuel, $1.25, and 24-26 fuel, $1.30. Higher gravity fuels not having a low cold test also were not particularly in demand with 26-28 only bringing $1.35, and 28-30, $1.45 to $1.50.

Low cold test 28-30 was quoted at $1.60 and 26-28 at $1.40 to $1.45.

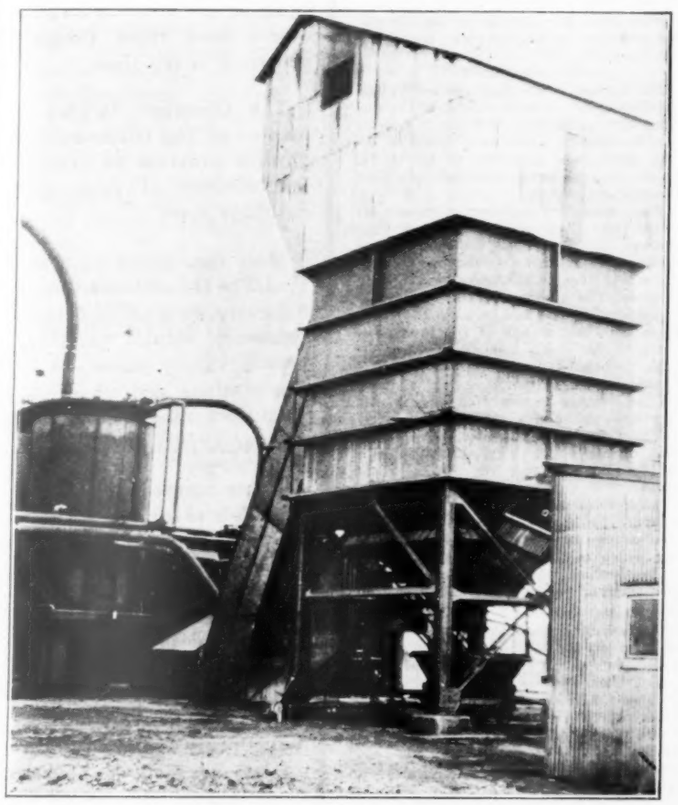
Use Endless Chain Conveyor for Coke

Refinery of Producers & Refiners Corp. Handles Residuum From Cracking Still With Minimum Labor. Other Interesting Features

By C. O. Willson

PARCO, Wyo., Oct. 27.—At the local refinery of the Producers & Refiners Corp. practically every operator will find something of interest regardless of in what phase of the industry he is engaged. The refinery was built four years ago, and due to that fact no old equipment is used in any part of the plant. The refinery is complete in its operations having well balanced topping, cracking and lubricating departments.

The refinery was built here due to the strategic position both from the standpoint of a crude supply and also marketing facilities. The bulk of the crude supply at the present time comes from the Lost Soldier Field, about 50 miles north of here. The company controls a large part of the production of that field, which has no pipeline outlet other than the line to the refinery here. The gas supply for the refinery also comes from the same field.



View at Parco, Wyo., refinery of Producers & Refiners Corp., showing endless chain conveyor, elevator and bin arrangement for handling 90 tons of coke daily from cracking units. Coke in bin is dumped in cars of plant's industrial railway.

The plant is on the Union Pacific Railroad and well located from the standpoint of distribution in the Rocky Mountain states. The town was built at the same time as the refinery and bears the trade name of the plant's products.

As previously stated, there are several phases of the refinery's operations which are of more than passing interest. It will be necessary, however, to confine this article to the methods used in handling coke at the cracking plant, the conduits for the pipelines and the fire-fighting equipment.

Handling Dubbs Coke

Ten Dubbs cracking units were installed at the time the refinery was built and they have been in consistent operation since. These units handle the residuum from the topping plant. Operating with a crude which in the case of Lost Soldier Field averages around 30 gravity, the cracking operations are more important than the topping operations from the standpoint of gasoline yields.

The method of operating the battery of cracking stills in most respects is similar to that of Dubbs installations at other refineries. The provision made for handling the coke, however—so far as the writer knows—is unique in cracking still installations.

Since numerous refiners started the non-residuum method of operating the Dubbs units, several devices have been brought forth to handle the coke from the reaction chambers. Most of the methods used have necessitated considerable manual labor with other undesirable features.

At the Producers & Refiners plant, with 10 units averaging approximately 90 tons of coke daily, the removal of the coke from the reaction chambers and its transportation to storage is a greater operating problem than at smaller plants. The coke is removed from the chambers by the cable method, the same as in several other Dubbs installations.

The cable is placed around the sides of the reaction chambers after cleaning. When a chamber becomes filled with 25 to 30 tons of coke, the manhead is removed at the bottom. The coke in the chamber is then broken up and allowed to fall out through the manhead by pulling the cable with a 7 by 7-inch duplex hoisting engine.

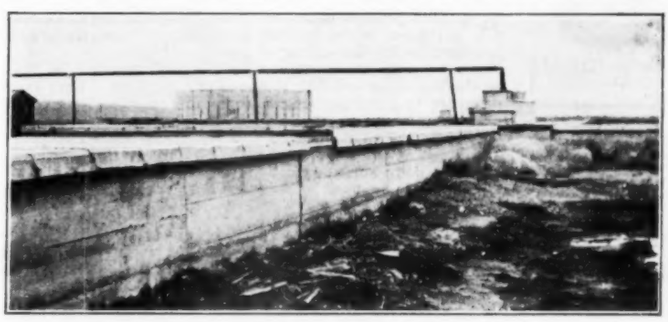
Instead of allowing the coke to fall on the floor beneath the chambers or in portable conveyors, at the Producers & Refiners refinery, it is picked up by an endless chain conveyor as shown in the accompanying photo. The conveyor travels in a concrete conduit which extends the entire length of the battery of cracking units.

The Link-Belt conveyor consists of an endless steel chain 20 inches wide with 1½-inch fins at 12-inch intervals to aid in the movement of the coke. The chain passes around two solid metal wheels at both ends of the battery. One wheel is connected to a 10-horse power electric motor which furnishes all the power needed for the operation of the conveyor.

Picked Up by Conveyor

As the coke falls from the reaction chambers it is picked up by the conveyor and moved to the end of the battery as shown in the photo. Here the conveyor dumps the coke into buckets of an elevator, which in turn dumps the coke into the bin, which has a capacity of 100 tons. The coke is easily removed from the bin through the opening in the cone-shaped bottom. The coke from the bin is dropped into the coke cars of the plant's industrial railway and then transported to the briquetting plant.

In the removal of the coke from the chambers it is usually necessary to keep flushing the chamber with water to prevent flashing. Part of this water is dumped into the bin along with water. The cone-shaped bottom is perforated so that the water is removed before it is emptied into the cars. The company has found that this is a rapid and economical method of handling the coke with a minimum of operating difficulties. Labor costs, considering the amount of coke handled, are low.



Concrete conduits for pipelines at Parco refinery.

Pipeline Conduits

Due to the extremely cold weather of the winter months and the relatively high cold test of the Lost Soldier test, it was found necessary at the Parco refinery to make special arrangements in laying pipelines not only for the crude but the heavy end refined products containing considerable wax.

The concrete conduits shown in the accompanying photograph was the company's solution of this problem. This system serves the double purpose of providing means for keeping the pipelines at the desired temperature and also gives ready access to the lines whenever changes or repairs are necessary.

Th conduit system extends to storage tanks, including crude storage and also to all parts of the refinery. The accompanying picture was taken at a point where the conduit extends out of the ground, in order to show the construction features. However, at most parts of the plant, the top of the conduit is only a few inches below the surface of the ground.

The conduits are 3 feet deep and 3½ feet wide. The concrete is 3 inches thick. The top of the conduit is covered with concrete slabs 18 inches wide. As shown in the photograph, these concrete slabs which constitute the covering for the conduits have recessed edges.

When the slabs are put in place, tar is poured into the recessed edges. This gives a water and snow-proof covering which protects the pipes. In case it is necessary to get to the pipes at any point, the concrete slabs can easily be lifted from place by two men. After the line has been repaired, the slabs can then readily be replaced.

View showing steam and Foamite fire-fighting equipment at run-down tanks. Note remote steam controls.

To maintain the temperature in the conduit necessary for pumping the oils, steam lines are used. The size of the lines depends entirely on the number of oil lines which have to be protected. A temperature is maintained which assures a ready flow of all liquids.

Fire Prevention

A visitor at the refinery will note the measures taken to prevent fires and also the fire-fighting equipment. Working on the theory "that an ounce of prevention is worth a pound of cure," every precau

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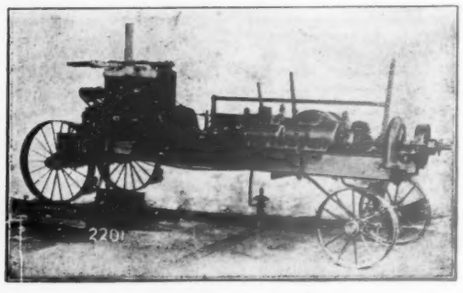

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tion is taken to prevent fires. In the first place the plant yard is kept free of waste oil. Covered with clean gravel, the yard presents a clean appearance which contrasts with the unsightly and hazardous condition still found at many refineries.

The plant management gives the major part of the credit to the fire marshal. The fire marshal devotes all his time to seeing that the plant's fire prevention policy is carried out, including the inspection of all equipment. Each department of the refinery furnishes an assistant to the fire marshal. These men are regularly instructed and drilled in the prevention of fires and the utilization of the equipment as it applies to their departments. These men in turn are held responsible for the instruction of other employes in their departments.

In this manner, the co-operation of all employes is secured, so that the chance of fires through carelessness is reduced to a minimum. The men chosen from each department constitute the fire department which responds to all fire alarms. It is worthy of note in this connection that, due largely to the prevention measures taken, the plant has never had a serious fire.

Fire Equipment

The fire equipment used and method of installation is partially shown in the accompanying photograph. When the plant was first built, lines were installed so that steam was available at all tanks. Later the company installed complete Foamite equipment.

The steam lines, however, were not removed, and they now constitute an important supplement in the plant's fire equipment. As shown in the photograph, the steam lines to all tanks have remote controls. The numbers on the steam lines correspond to the numbers on the tank. In case of fire at one of the tanks, the operator can turn the steam into the tank without danger to himself. These remote controls are found in various parts of the refinery, where they are readily accessible to the operator.

The Foamite system also covers every part of the plant. The control is in a building located near the center of the plant. The building houses a National Transit twin duplex steam pump (15 by 8 by 18 by 18). This pump connects to two storage tanks just outside the building which contain the "A" and "B" solutions, which when mixed together give the desired chemical for smothering flames.

In case of fire, all that is necessary is to turn on the steam at the pump and open the suction and discharge lines which connect to the tanks containing the solutions. The suction and discharge lines are clearly marked so as to assure there will be no confusion on the part of the operator.

The pump discharges the solutions into two main lines which extend to all parts of the refinery, including the crude storage tanks. At several points in the plant these main lines have headers connecting to smaller lines which extend to tanks and other plant equipment. By means of these headers, the two solutions are discharged into a mixing chamber. Here the final Foamite solution is formed and is available wherever needed.

The photograph of the run-down tanks for the topping and re-run plant illustrates the application of the equipment. The two main lines—one carrying "A" and the other "B" solution—pass near the run-down tanks. Through the header arrangement each one of the tanks connects to these main lines. The operator with the remote controls at the header can open lines connecting to any of the tanks. The two solutions are then mixed in the mixing chamber or drum, which is suspended from the roof of the run-down tanks. The chemical is then discharged as one solution into the tank.

For fighting fires other than closed tanks, hydrants are provided. These operate on the same principle. The solutions from the two main lines are brought together in a mixing chamber and the chemical is then available through hose connections in any part of the plant. The required length of hose is kept in a metal and glass box near each of the hydrants.

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ATLANTIC RECEIPTS DECLINE IN OCTOBER

By N. O. Fanning

New York Bureau, The Oil and Gas Journal
30 Church St., New York

NEW YORK, Nov. 13.—A seasonally lessened demand for oil was indicated by a decline in receipts of crude and refined oil at Atlantic Coast ports by tanker during October, when the movement totaled 13,938,000 bbls., a daily average of 445,000 bbls. This compares with 15,547,000 bbls., or 518,000 bbls. a day, in September, but ot the same time shows a gain over October, 1925, when receipts totaled only 11,947,000 bbls., a daily average of 387,000 bbls.

October, 1926, receipts from the Gulf Coast showed a further shrinkage to a daily average of 270,000 bbls., against 299,000 bbls. in September. The Port Arthur and Houston districts account for the comparatively small decline, receipts from the Baton Rouge-New Orleans district increasing from a daily average of 67,000 bbls. in September to 72,000 bbls. in October.

Imports from Mexico showed no recovery from the recent slump, in fact averaging 2,000 bbls. a day less in October than in September. Imports from South America also declined but still averaged 43,000 bbls. daily, which is considered a good showing.

The following table shows total and daily average estimated receipts of crude and refined oil at Atlantic Coast ports from the various sources (in barrels):

	Oct. '26	Sept. '26	Oct. '25
Total			
Baton Rouge, New Orleans	2,255,000	2,025,000	1,908,000
Pt. Arthur, Sabine, Beaumont	3,414,000	3,884,000	3,238,000
Houston, Texas City and Galveston	2,767,000	3,102,000	2,607,000
Gulf Coast	8,436,000	9,011,000	7,753,000
Pacific Coast	2,252,000	2,906,000	1,099,000
Mexico	1,894,000	1,884,000	2,434,000
So. America	1,356,000	1,746,000	663,000
Grand total	13,938,000	15,547,000	11,949,000
Daily Average			
Baton Rouge and New Orleans	72,000	67,000	60,000
Port Arthur, Sabine and Beaumont	108,000	129,000	105,000
Houston, Texas City and Galveston	90,000	103,000	84,000
Gulf Coast	270,000	299,000	249,000
Pacific Coast	71,000	98,000	36,000
Mexico	61,000	63,000	80,000
South America	43,000	58,000	22,000
Grand total	445,000	518,000	387,000

Imports at Atlantic Coast ports from South America (including a small amount from Trinidad) have totaled 9,894,000 bbls., against 3,981,000 bbls. during the entire year 1925. During September and October of this year they ran at the rate of 16,000,000 bbls. a year.

CONTINENTAL PIPELINE CAT CREEK RECEIPTS

HELENA, Mont., Nov. 13.—Receipts of oil by the pipeline system of the Continental Oil Co. in the Cat Creek Field during September totaled 78,500.22 bbls., while deliveries for the month aggregated 81,831.79 bbls., according to the monthly report filed with the State Board of Railroad Commissioners.

Of the receipts 31,879.89 bbls. were obtained by purchase, while 46,620.33 bbls. were received for transportation by other producers.

Deliveries were made during the month as follows:

Purchase Account—Standard Oil Co. of Indiana, 4,576.16 bbls.; Utah Oil Refining, 8,373.05 bbls., total 12,945.20.

Common Carrier Account—Yale Oil Corp., 7,710.36; Lewistown Oil Refining Co., 35,538.13; Arro Oil & Refining Co., 10,533.28; North Star Oil & Refining Co., 2,799.27; Utah Oil Refining Co., 6,639.14; Hart Refineries, 2,396.66; Silver Bow Refining Co., 2,065.85; Bluebird Oil & Refining Co., 1,199.90; total, 68,882.59.

The Continental held in storage for itself at the close of the month 71,842.45; held in storage for others 9,617.90 and had unfilled storage for 121,343.15 bbls. The field price throughout the month was $2.40 per bbl.

Took No Chances—
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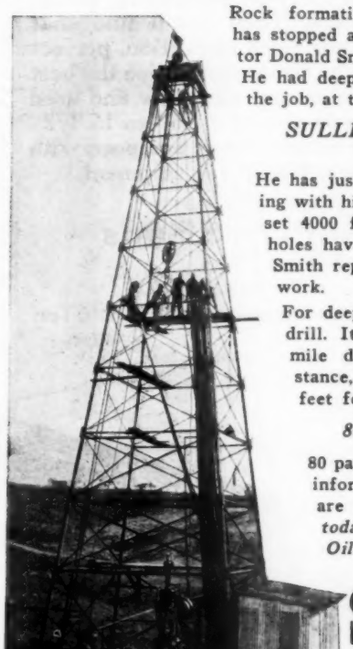

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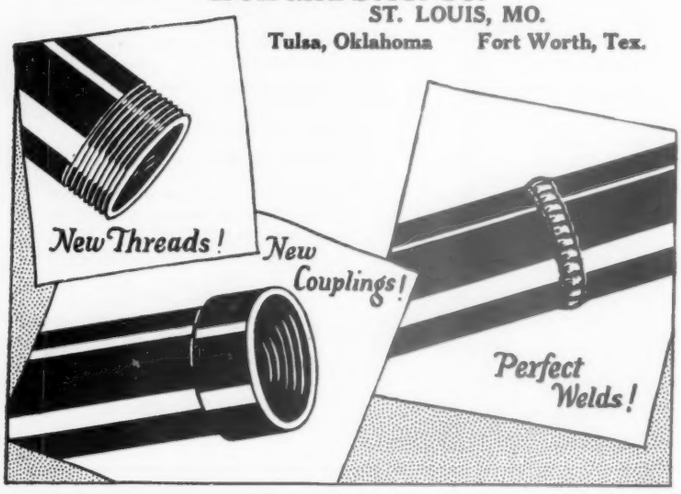

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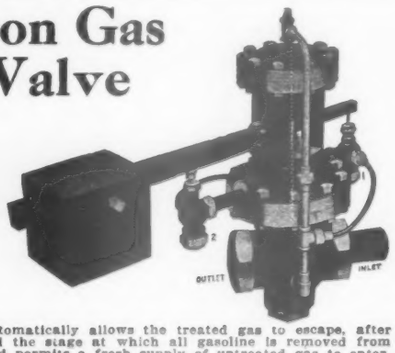

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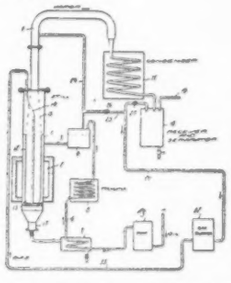
Frequently when "pulling out" a cloud resembling smoke almost hides the derrick from view. The drilling crews are often inconvenienced by particles of this material getting into their eyes.

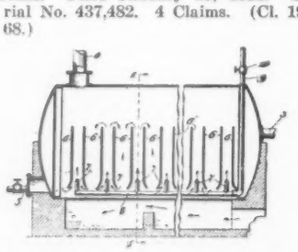
Recent Patents

1,601,729. Process of Distillation. Warren F. Faragher, William Arthur Gruse, and Frederick Horace Garner, Pittsburgh, Pa., assignors to Gulf Refining Co., Pittsburgh, Pa., a Corporation of Texas. Filed May 25, 1921. Serial No. 472,385. 2 Claims. (Cl. 196—90.)



2. The method of fractionally distilling petroleum oil and the like, which comprises externally heating a body of oil in a still below the cracking temperature causing the oil to circulate over vertically directed paths between the top and bottom parts of the body of oil and laterally at the top and bottom parts of the body, by introducing upwardly directed gaseous currents acting on the air-lift principle, the oil circulating upwardly from the point of gas introduction, whereby the formation of dead layers of oil is prevented and effective mixing throughout the body of oil is promoted to maintain substantial uniformity of temperature throughout the oil body, and collecting the distilled vapors.

1,601,728. Process and Apparatus for Cracking Hydrocarbon Oils. Warren F. Faragher, William Arthur Gruse, and Frederick Horace Garner, Pittsburgh, Pa., assignors to Gulf Refining Co., Pittsburgh, Pa., a corporation of Texas. Filed January 15, 1921. Serial No. 437,482. 4 Claims. (Cl. 196 68.)



1. The method of cracking oils in a horizontally arranged still, which comprises heating a body of the oil therein by external heat to the cracking temperature under pressure, subdividing the main body of oil in the still into a series of transversely arranged smaller bodies

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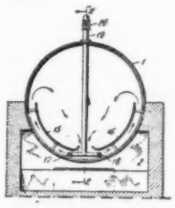
communicating with each other at their upper and lower ends, introducing the oil to be cracked at one end of the still and withdrawing the residue from the other, and maintaining effective circulation of the oil in the said transversely arranged bodies and along the heated bottom of the still by the introduction of gaseous currents, acting on the "air-lift" principle, near the lower ends of the subdivided smaller bodies.

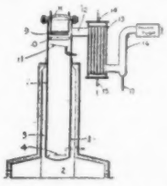
1,601,730. Process and Apparatus for Cracking Hydrocarbon Oils. Warren F. Faragher, Pittsburgh, and William A. Gruse, Wilkinburg, Pa., and Frederick H. Garner, Fawley, England, assignors to Gulf Refining Co., Pittsburgh, Pa., a corporation of Texas. Original application filed January 15, 1921, Serial No. 437,481, and in Canada December 29, 1921. Divided and this application filed March 29, 1923. Serial No. 628,501. 6 Claims. (Cl. 196—68.)



1. In a method of cracking oils in a horizontally arranged rum still, heated by external heat over its lower surface, the step which comprises preventing deposition of carbon in the bottom of the still and stagnation of oil within the still by causing circulation of the entire body of the oil by injecting a gaseous current into a flue within the still and at a point within the flue itself.

3. An appartus for cracking oils comprising a horizontally arranged drum still, means for heating said still externally, means for preventing deposition of carbon in the bottom of the still and stagnation of oil within the still consisting of baffles spaced from each other which form flues, and means for introducing a gaseous current into each flue at points within the limits of the flues.

1,599,824. Apparatus for Distilling Decomposable Materials. Warren K. Lewis, Newton, Mass., assignor to the Humble Oil & Refining Co., Houston, Tex., a corporation of Texas. Filed November 10, 1922. Serial No. 599,963. 1 Claim. (Cl. 196—136.)



Apparatus for the vacuum distillation of hydrocarbon oils, comprising a still including in a lower portion a heated receptacle for the liquid oil, in an upper portion a cooling zone, and a vapor passage connecting said receptacle and cooling zone; said vapor passage being substantially unobstructed and having a cross-sectional area adequate to permit free flow of vapors, a jacket arranged about said passage, means for passing a heated fluid through said jacket to maintain the temperature of the vapors, means for supplying a cooling fluid to said cooling zone, means for preventing reflux to the heated receptacle of any substantial amount of condensate formed in said cooling zone, a draw-off conduit for vapors passing the cooling zone, and means for exerting suction upon said conduit.

1,599,825. Art of Distilling Easily-Decomposable Materials. Warren K. Lewis, Newton, Mass., assignor to the Humble Oil & Refining Co., Houston, Tex., a corporation of Texas. Filed

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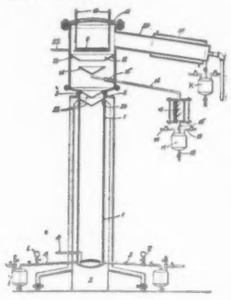
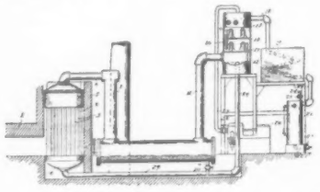
December 30, 1922, Serial No. 609,886. Renewed August 7, 1926. 5 Claims. (Cl. 196—102).



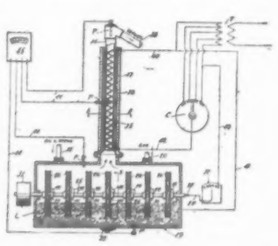
4. Distillation apparatus which comprises a vaporizing receptacle, a condensing section adapted to receive vapors therefrom, a centrally apertured deflector mounted on the inner surface of said section and having walls inclined inwardly therefrom, a collector pan spaced below said deflector and having an extent not substantially greater than that of the central aperture in the deflector, means for drawing off the condensate from the collector pan, and means for removing uncondensed vapors from the condensing section.

1,600,721. Process for Treating Hydrocarbons. Carbon P. Dubbs, Wilmette, Ill., assignor to Universal Oil Products Co., Chicago, Ill., a corporation of South Dakota. Filed January 12, 1920. Serial No. 350,868. 3 Claims. (Cl. 196—48.)



2. A process of treating hydrocarbon oils consisting in continuously passing the oil in relatively small streams through vertical tubes seated in a furnace wherein the oil is subjected to a cracking temperature, in passing the oil from said tubes into an expansion chamber where a substantial vaporization occurs and from which no unvaporized oil is permitted to return to said streams, in passing the vapors issuing from said chamber through a dephlegmator in continuously passing raw oil through said dephlegmator to come in physical contact with the vapors therein to preheat the raw oil and condense the heavier fractions of the vapors, in condensing the uncondensed vapors issuing from said dephlegmator and in collecting the resulting distillate, in passing reflux condensate and raw oil from said dephlegmator to the lower ends of said vertical tubes and in maintaining a superatmospheric pressure on the system.

1,599,629. Apparatus for Hydrogenating Oils. Edward L. Anderson, Long Beach, Calif., assignor of one-fourth to Edward T. Thericau, Long Beach, Calif. Filed March 26, 1923. Serial No. 627,637. 3 Claims. (Cl. 196—121.)



1. Apparatus of the character herein described, comprising a chamber adapted to contain a partial charge of liquid hydrocarbons and water, a rotatable shaft

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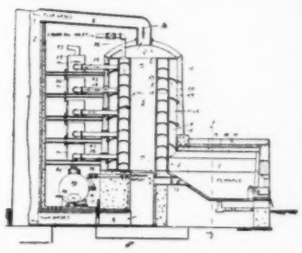
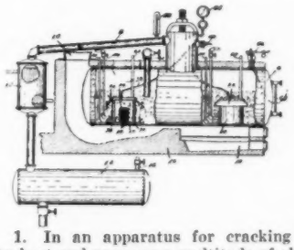
extending through the chamber, a plurality of disc like elements mounted on the shaft and standing partially in the liquid charge and partially in the space in the chamber above the liquid level, each of said elements including a heat and catalytic element.

1,597,375. Crude Topping Plant. Clarence F. Hanson, Los Angeles, and Perry Vandervort, El Segundo, Calif. Filed December 29, 1922. Serial No. 609,590. 8 Claims. (Cl. 196—128.)



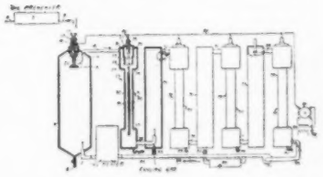
3. In an oil still, oil passage, and means providing gas passages adjacent each side of the oil passage, said oil passage presenting an upwardly convex bottom tending to divide the oil into two streams, each of which will be adjacent a side of the passage.

1,597,476. Apparatus for Distilling and Cracking Crude Petroleum and Distillate. Carl M. Page, Chicago, Ill., assignor to George Fabyan, Geneva, Ill. Filed August 26, 1920. Serial No. 406,179. 5 Claims. (Cl. 196—121.)



1. In an apparatus for cracking oil by heat and pressure a multitude of closely situated vertical metallic surfaces and means surrounding them for electrically heating the same.

1,604,424 Process for Refining Petroleum and Other Materials. Walter A. Schmidt, Los Angeles, Calif., assignor to International Precipitation Co., Los Angeles, Calif., a corporation of California. Filed July 19, 1920. Serial No. 397,388. Six claims. (Cl. 196—94.)



1. The process of distilling oil which consists in spraying liquid oil in finely divided condition into contact with current of incondensable gas at such temperature as to cause volatilization of constituents of the oil, then cooling the gas by introduction of a gaseous cooling agent thereinto in such manner as to form a fog or cloud of condensed hydrocarbon vapor, and then precipitating such fog or cloud particles.

NOVA SCOTIA OIL SHALES

It is reported that the same interests that have recently been promoting the development of the oil shales of Pictou County, Nova Scotia, are continuing investigations over another large area, making a total of 7,000 square mile extending from the Bay of Fundy through to the eastern limits of Cape Breton.

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THE F. E. MYERS & BRO. CO. Ashland, Ohio
—ASHLAND PUMP AND HAY TOOL WORKS—

Detailed Operations in All Fields for Month of October

SUMMARY OF ALL FIELDS

Field—	Comp.	Prod.	Dry	Gas
Eastern	518	2,945	53	84
Central Ohio	30	267	7	15
Lima	39	517	5	0
Michigan	26	431	2	0
Indiana	31	568	6	5
Illinois	39	902	14	5
Kentucky	113	1,116	20	8
Tennessee	3	400	0	0
Mississippi	1	0	0	1
Kansas	174	14,872	54	5
Oklahoma	448	119,731	152	30
North and West Texas	687	68,260	206	51
Texas Panhandle	131	74,276	6	3
East Central Texas	35	7,655	13	0
Gulf Coast	142	105,361	42	0
Southwest Texas	59	6,785	5	14
Arkansas	70	4,086	9	4
North Louisiana	94	11,021	35	14
Wyoming	39	3,419	6	0
Montana	52	1,081	24	0
Colorado	8	410	2	0
Utah	1	0	1	0
New Mexico	13	425	6	0
Total Oct.	2,753	424,528	670	199
Total Sept.	2,494	312,235	629	178
Difference	259	112,293	41	21

Summary of New Work

Field—	Rigs	Drg.	Ttl.
Eastern	176	507	683
Central Ohio	13	104	117
Lima	5	50	55
Michigan	16	30	46
Indiana	11	49	60
Illinois	5	46	51
Kentucky	14	197	211
Tennessee	0	17	17
Mississippi	0	10	10
Alabama	0	4	4
Florida	4	9	13
Kansas	79	313	392
Oklahoma	260	1,138	1,398
North and West Texas	121	833	954
Texas Panhandle	124	418	542
East Texas	5	38	43
Gulf Coast	49	196	245
Southwest Texas	33	105	138
Arkansas	21	82	103
Louisiana	48	116	164
Wyoming	30	307	337
Montana	19	138	157
Colorado	13	107	120
Utah	5	34	39
New Mexico	7	143	150
Total Oct.	1,058	4,991	6,049
Total Sept.	1,076	5,119	6,195
Difference	18	128	146

Note—In the following report the Section, Township and Range are given first; then the farm, the owner, the serial number of the well and the initial production of the well. The rigs and wells drilling are set forth in similar manner. In lines where the Section, Township and Range are missing the wells are located in the Sections, Townships and Ranges which appear next above in the report.

OKLAHOMA FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Osage	77	13,925	15	5
Tulsa	21	855	9	3
Okmulgee	30	909	15	3
Seminole	43	72,298	9	4
Okfuskee	13	290	7	2
Hughes	12	1,983	7	0
Muskogee and Wagoner	18	115	16	0
Creek	64	6,170	18	3
Pawnee	12	1,146	1	1
Kay	20	12,289	5	0
Garfield	23	2,087	1	0
Payne	11	881	1	1
Lincoln	8	728	4	0
Grady	9	610	1	0
Stephens and Cotton	14	97	7	3
Carter	24	4,847	4	3
Miscellaneous	49	491	26	2
Total October	448	119,731	152	30
Total September	393	45,734	140	24
Difference	55	73,997	12	6

Summary of Rigs and Wells Drilling

County—	Rigs	Drg.	Ttl.
Osage	52	50	102
Tulsa	9	20	29
Okmulgee	14	67	81
Seminole	31	223	254
Pottawatomie	1	19	20
Okfuskee	14	37	51
Hughes	5	31	36
Muskogee and Wagoner	6	41	47
Creek	38	137	175
Pawnee	9	30	39
Kay	12	99	111
Payne	4	35	39
Lincoln	2	25	27
Grant	1	10	11
Noble	0	7	7
Garfield	5	51	56
Grady	15	40	55
Comanche	1	14	15
Pontotoc and Garvin	2	13	15
Stephens and Cotton	7	41	48
Jefferson	2	9	11
Carter	14	59	73
Miscellaneous	16	70	86
Total October	260	1,138	1,398
Total September	250	1,126	1,376
Difference	10	12	22

WELLS COMPLETED

OSAGE COUNTY

15-29-10 Keener O. & G. 21 20
Keener O. & G. 22 2
31-25-8e A. G. Oliphant 3 400
34-25-11 Devonian Oil 14 25
5-24-8e Amerada Pet. 1 190
Carter Oil 2 25
Carter Oil 3 150
1-23-8e Tidal Osage Oil 1 30
23-22-9e Skelly Oil 1 ..... dry
5-22-11 Kewanee O. & G. 16 60
17-21-12 Kewanee O. & G. 2 40
5-20-11 Sand Springs Home 6 40
24-20-11 Riverland & Inter Ocean Oil 1 dry
5-20-12 Barnsdall Oil 17 30
F. A. Gillespie & Sons 7 20
2-25-6e Prairie O. & G. 1 ..... dry
20-26-6e Phillips Pet. 12 210
21-26-6e Phillips Pet. 1 550
6-24-8e C. F. Lake et al 3 75
20-24-9e Tidal Oil 4 135
32-24-9e Peters Pet. 1 80
14-23-11 Ashland & Barnsdall Oil 13... 15
8-20-11 Pioneer Pet. 3-A 20
10-27-11 C. O. Rose et al 3 ..... dry
8-23-10 Adium et al 2 ..... dry
10-27-6e Prairie O. & G. 1 ..... dry
25-26-6e Petroleum Drg. Co. 19 ..... gas
30-25-8e Lewis Oil 4 300
35-22-8e Skelly Oil & Moore 3 50
18-22-11 Sophia Nadle 10 20
15-21-12 Tidal Oil 9 20
22-21-12 Tidal Oil 4 12
20-21-12 Oklahoma Nat. Gas 715 ..... dry
10-27-6e Prairie O. & G. 1 ..... dry
1-27-5e Phillips Pet. 9 500
Phillips Pet. 12 20
7-27-6e Phillips Pet. 11 2050
17-27-6e Peters Pet. 5 300
34-27-6e Kewanee O. & G. Co. 1 1680
8-27-11 Osage Gas Prod. 371 ..... gas
20-26-6e Phillips Pet. 11 100
19-25-8e A. G. Oliphant 4 25
6-24-8e C. F. Lake et al 1 ..... dry
25-24-9e I. T. I. Oil 239 ..... dry
1-23-8e Tidal Osage Oil 2 1077
Tidal Osage Oil 3 462
34-23-9e Tidal Osage Oil 1 ..... dry
7-21-9e W. S. Mitchell 5 55
24-21-9e Sand Springs Home Oil 97 ..... gas
2o-20-12 Devonian & Elliott 10 ..... dry
28-20-12 Continental Oil 16 35
29-20-12 Winona Oil 8 25
18-29-12 Kewanee Oil Co. 110
28-28-10 Osage Gas Prod. Co. 1 ..... gas
12-28-11 Delmar Oil 1 ..... dry
1-27-5e Phillips Pet. 5 50
Phillips Pet. 7 450
26-27-5e Skelly Oil 7 10
7-27-6e Phillips Pet. 1 75
Phillips Pet. 14 800
34-27-6e Kewanee Oil 1 1810
Kewanee Oil 2 767
29-25-8e The Texas Company 2 130
30-25-8e Lewis Oil 5 125
19-24-8e Atlantic O. P. 1 400
27-24-10 Winona Oil 6 20
34-24-10 Walker Oil 12 25
7-23-9e Continental Oil & Prairie 1 ... 30
18-23-9e Peters Pet. 1 ..... dry
17-23-10 New England O. & P. L. 1 120
17-23-12 Silurian Oil 1 50
25-22-7e Pure Oil 4 60
34-22-10 Tidal Oil 20 25
4-22-11 Kewanee Oil 4 50
20-21-11 Oklahoma Nat. Gas 760 ..... dry
17-21-12 Kewanee Oil 3 ..... dry
30-21-12 Barnsdall Oil 19 55

Wells completed 77
Production 13925
Dry 16
Gas 5
Gas production 52,500,000

TULSA COUNTY

23-19-11 Unallotted, Sand Springs Home 1 150
10-16-12 Jenkins, Thompson & Black 4 gas
5-16-13 Barthoff, Thompson & Black 5 40
4-19-11 Gates, Sand Springs Home 1.. dry
23-19-11 Arch, Sand Springs Home 1.. dry
35-19-11 Inchoe, A. A. Thornton 1 ... dry
7-19-10 Burnett, Superior Oil & Swift 1-A 160
19-19-11 Littleton, Commercial Drg. Co. 5 85
7-16-14 Buck, The Texas Company 1.. gas
36-19-11 Franklin, Munn Bros. 2 ..... dry
6-19-10 McKee, Superior Oil 2 145
18-19-10 Benmore, Holmes et al 1-A... 20
23-19-11 Steel, Sand Springs Home 1... dry
12-17-14 McIntosh, W. O. Dickson 1 ... dry
7-16-14 Roland, Savory Oil 1 ..... gas
7-19-10 Burnett, Superior Oil & Swift 2 180
15-19-11 Fife, Minshall et al 2 60
29-19-11 Cato, Cato O. & G. 10 15
4-19-14 Berryhill, Ora Upp et al 1 ..... dry
6-17-13 Oswalt, Hilt et al 3-A ..... dry
29-17-13 Berryhill, E. A. Beasley 1-A.. dry

Wells completed 21
Production 855
Dry 9
Gas 3
Gas production 19,000,000

OKMULGEE COUNTY

9-15-12 Forty-Four, C. L. McMahon 1. 149
32-15-13 Roberts, C. H. Miller 1 ..... dry
3-15-14 Kelly, Transcontinental Oil 1. gas
15-15-14 Francis, Selby, Hyre & Payne A ..... dry
16-15-14 Bruner, The Texas Company 7 50
21-15-14 S. Garnett, McCulloch Oil 7.... 220
16-14-14 Love, F. E. Misener 9 ..... dry
23-14-14 Corbray, C. T. Smith 9 10
4-13-14 Fosher, J. K. Gardner 2 ..... dry
29-13-14 Wiley, F. E. Cusick et al 5-W 40
14-15-14 Scott, H. E. Clark et al 4 .... dry
4-15-11 Lewis, D. D. Mickelson 2 10
4-15-14 Beams, Future Dev. & Transcontinental Oil 2 100
23-14-14 Corbray, M. Board 15 5
23-15-14 Lowery, E. J. Lambert 1 ..... dry
33-15-14 Norris, Radcliff Oil 1-A..... dry
7-15-14 Brown, E. B. Grubbs 1 ..... dry
19-15-14 Perryman, Custer Oil 8 ..... dry
33-15-12 Peloche, Devonian Oil 3 ..... dry
35-15-12 Claunch, W. E. Hammon et al 3 ..... dry
5-14-11 McIntosh, J. H. Reboid 6 ..... dry
4-14-12 Smith, Campbell & Phillips Pet. 1 ..... gas
25-13-11 Lewis, J. A. Swindler & Sons 9 50
10-13-12 Harrison, Haley & Hallihan 1. dry
7-12-12 Wilson, Morton & Co. 7 ..... dry
13-14-14 Rentie, Elm Oil 8 150
33-14-14 Stutton, W. M. Hewitt 9 75
24-16-12 Tiger, Devonian Oil 8 50
16-15-12 Marsey, T. A. Johnson 1 ..... dry
3-11-12 West, W. L. Kistler et al 5 ... gas

Wells completed 30
Production 909
Dry 15
Gas 3
Gas production 20,000,000

SEMINOLE COUNTY

33-11-8e Pierce, Continental Oil 9 150
8-10-8e Deere, Devonian Oil 2 ..... dry
23-9n-6e Killingsworth "A," Amerada Pet. 3 4890
7-9n-8e McDaniel, Independent O. & G. 2 125
8-9n-8e Buckner, Holm, Jarvis & Atlantic 1 ..... dry
23-8n-7e Hanning, Magnolia Pet. 3 ... 51
31-8n-8e Willis, Carter Oil & Boggs 6.. 842
33-11-8e Pierce, Sinclair Oil 10 50
24-9n-6e Tayoche, Mid-Cont. Pet. 2 2150
Mahardy, Tidal Oil 2 4210
7-9n-8e Kidd, Independent, Holm & Jarvis 1 125
15-8n-6e Goforth, I. T. T. Oil 2 ..... gas
24-9n-6e Carter, Carter Oil 1 1497
18-9n-8e Peters, Southwestern Pet. 3 .. 50
14-8n-7e Jackson, T. B. Slick 3 ..... dry
14-8n-7e Jackson, T. B. Slick 4 ..... dry
32-8n-8e Long, Dixie Oil 4 ..... dry
Long, Independent & Continental 2 ..... dry
Long, Independent & Continental 3 ..... dry
33-10-6e Kinkade, Prairie O. & G. 3.....1160
24-9n-6e James, I. T. I. Oil 2 20
23-9n-6e Reed, I. T. I. Oil 2 1097
24-9n-6e Tayoche, Mid-Cont. Pet. 4 600
26-9n-6e Fixico, Independent & Garland 2 5612
Fixico, Independent & Garland 3 2800
34-9n-6e Strothers, Carter Oil 1 ..... gas
31-8n-8e Pollatka, Superior Oil 1 ..... dry
15-8n-8e Sewell, Champlin & Bass 1... gas
31-8n-8e Amos, W. R. Ramsey 6 2908
5 7n-8e Simon, Independent & Atlantic 4 ..... dry
6-7n-8e Knight "C," Dixie Oil 4 10
Hawkins, Magnolia Pet. 2 10
33-10-6e Coungblood, Searight et al 3...4841
14-9n-6e Rentie, Mid-Cont. Pet. 1 4320
24-9n-6e Carter, Barnsdall Oil 2 3225
James, I. T. I. Oil 7 1474
Mahardy, Tidal Oil 1 5320
26-9n-6e Fixico, Independent & Garland 4 4600
Bowlegs, I. T. I. Oil 3 10500
Strothers, Pure Oil 2 9019
34-9n-6e Cudjo, Amerada Pet. 1..... dry
15-8n-6e Walker, Gypsy Oil 1 ..... gas
33-8n-8e Scott, Magnolia Pet. 4 12

Wells completed 43
Production 72,298
Dry 9
Gas 4
Gas production 119,000,000

OKFUSKEE COUNTY

12-12-10 Cinnin, Independent O. & G. 1. dry
15-11-11 Jacobs, Champlin Ref. 4 180
23-11-11 Unallotted, Carter Oil 1 10
13-12-11 Sugar, Independent O. & G. 13 dry
33-10-9e Barnett, Arkansas Fuel Oil 2. dry
25-11-11 Barnett, Carter Oil 2 ..... gas
26-11-9e Collins, Prairie O. & G. 1.... dry
13-13-8e Wilson, Peerless O. & R. Co. 1 dry
3-11-9e Henderson, Lenox Oil 1 ..... dry
19-10-11 Lockhart, Morgan, Flynn & Roxana 1 ..... dry
35-11-9e Harjo, Gypsy Oil 2 30
36-11-11 Holmes, W. L. Umburn 1 ..... gas
18-10-11 Simmer, Amerada Pet. 1 70

Wells completed 13
Production 290
Dry 7
Gas 2
Gas production 10,000,000

HUGHES COUNTY

8-6n-10 Kite, Walton, Snyder & Marshall 1 ..... dry
5-7n-8e Garner, Dixie Oil 7 1200
24-9n-10 Barnett, Roxana Pet. 1 ..... dry
9-9n-9e Tiger, Foster Oil 3 30
22-8n-9e Long, McCulloch Oil 1 ..... dry
5-7n-8e Garner, Humble O. & R. 2.... dry
Foster, Independent & Sinclair Oil 1 ..... dry
3-9n-9e Alexander, Mid-Cont. Pet. 13. dry
26-9n-9e Davis, Independent O. & G. 5. 408
Harjo, Transcontinental Oil 8. dry
Harjo, Transcontinental Oil 11 227
5-7n-8e Frederick, Amerada Pet. 10 .. 618

Wells completed 12
Production 1983
Dry 7

MUSKOGEE AND WAGONER COUNTIES

6-18-18 Bruner, R. E. Stewart et al 1. dry
20-17-17 Perryman, J. F. Blackwood et al 4 ..... dry
16-14-19 Cumpton, C. M. Bradley 1 ..... dry
19-18-15 Carpenter, F. C. Winters 1 ... dry
6-18-16 Wiley, Henry Barnes 1 ..... dry
19-17-18 Bradley, J. Nealey 3 ..... dry
5-17-19 Metfger, Ebon Ryan 1 ..... dry
8-16-18 Davis, Wilson et al 1 ..... dry
10-16-19 Nave, Mission Oil & F. A. Isett 1 ..... dry
3-11-20 Shemade, D. C. Lampton 1 ... dry
1-14-17 Sango, T. O. Pet. 7 ..... dry
6-17-15 Kelley, Tabasco Oil 3 ..... dry
6-17-16 Overton, Pat Boyles 2 ..... dry
36-17-16 Barnett, Shell Oil 1 ..... dry
29-15-15 Vandersilce, E. L. Kistler 4... 100
30-15-15 Vandersilce, Culp et al 5 15
17-15-17 Lewis, W. R. Sommerville 1 .. dry
5-14-19 Crittenden, Kate & Tetin 1... dry

Wells completed 18
Production 115
Dry 16

CREEK COUNTY

13-19-8e Peters, Gled Oil 1 ..... dry
Weaver, The Texas Company 3 50
27-17-8e Bruner, Southwestern Pet. 3... 30
3-17-5e Chisholm, Harwell Oil 2 35
20-17-10 Wiley, F. C. Adams 2 ..... dry
23-17-10 Holden, Kirschner 3 ..... dry
22-17-7e Litchfield, Prairie O. & G. 40. 32
27-17-8e Bruner, Southwestern Pet. 3.. 30
13-19-8e Ross, Gled Oil 5 100
24-19-8e Grayson, Grieves Oil 1 60
21-17-8e Scruggs, Burk-Greis & Darby Pet. 1 420
1-18-11 Richard, Gypsy Oil 14 780
1-18-11 Land, Riverland Oil 2-A 840
4-14-10 Harry, Mid-Cont. Pet. 2 110
24-17-8e Green, Lima O. & G. 4 ..... dry
36-15-10 Rogers, Scruggs & Carter Oil 1 dry
25-14-10 Settle, Chief Drg. Co. & Independent 1 ..... dry
9-17-7e Wiley, Magnolia Pet. 1 7
15-17-7e Stewart, Mid-Cont. Pet. 3 10
Stewart, Mid-Cont. Pet. 27 ... 18
22-17-7e Fife, Tidal Oil 4 15
5-16-8e Roberts, Olean Pet. 7 15
1-18-11 Richards, Gypsy Oil 15 700
Land, Riverland Oil 3 650
2-18-11 Sherrill, Sheridan Oil 3 30
10-17-9e Lindsey, Wilcox O. & G. 2 ... 100
13-17-10 Joconton, McCulloch Oil 1 25
21-16-9e Hendrickson, Lover & Meyers 1-A 150
1-16-11 Anthis, Wilcox & Oswalt 6 ... 50
3-19-8e Walker, Mannford Dev. Co. 1. dry
4-18-11 Lively, McCulloch Oil 1-A..... dry
9-18-12 Yellowhead, C. G. Tibbens 9... dry
7-17-12 Pittman, Gypsy Oil 37 ..... dry
20-16-11 Ponne, Erwin et al 1 ..... dry
13-19-8e Burlengane & Sharp 7 150
5-18-7e Atkins, Sand Springs Home 26 100
14-17-7e Stewart, Mid-Cont. Pet. 24.... 660
22-17-8e Johnson, Savoy Oil 6 5
23-16-8e Scott, Inter-Ocean Oil 5 100
11-14-8e White, Aztec Oil 4 10
8-18-10 Fields, H. Sparks et al 1 ..... dry
5-18-11 Eufaula, Holmes et al 1 40
9-18-11 Jack, Twin State Oil 8 ..... dry
5-18-12 Grayson, Curtis Oil 2 ..... dry
6-18-12 Sango, Sunray Oil 9 100
10-17-9e Bruce, Roxana Pet. 8 100
24-17-10 Dawson, Mid-Cont. Pet. 4 15
Tahkaney, J. H. Wright 12 ... 65
35-17-10 Bucktrot, Hiram O. & G. 1 ... dry
18-17-11 Meyer, Cumberland & Kirschner 1 40
21-15-9e Lucas, C. G. Tibbens 3 7
20-14-10 Knight, Hall & Donnelly 2 60
32-14-10 Doyle, T. B. Slick 1 140
27-17-8e Alec, Barnsdall Oil 1 ..... dry
26-18-7e Jones, Shaffer O. & R. 1 ..... gas
20-17-8e —, Transcontinental Oil 1 .. 100
30-15-8e Benjamin, Lima O. & G. 2 .... gas
26-14-8e Johnson, The Texas Company 5 10
13-17-10 Brink, Ted Ray Oil 1 110
24-17-10 Bucktrot, Pioneer Pet. 12 100
Tahkaney, J. H. Wright 11 ... dry
3-17-11 Fife, S. J. Smith 4 ..... gas
30-17-11 Beard & Nichols, M. P. Evans 1 ..... dry
30-15-9e Posey, C. G. Tibbens 1 5

Wells completed 64
Production 6170
Dry 18
Gas 3
Gas production 47,000,000

PAWNEE COUNTY

16-20-7e School Land, Mid-Cont. Pet. 23 35
7-20-8e Martin, Sheltz 3 350
16-20-7e School Land, Mid-Cont. Pet. 22 35
27-20-7e Reigle, Smith & Steinberger 1-A 6
34-20-7e Allen-Ryan Consolidated Oil 4 ..... dry
38-23-3e Miller, Watchorn O. & G. 16.. gas
4-20-8e Armstrong, Gypsy Oil 1 15

Wells completed 12
Production 1146
Dry 1
Gas 1
Gas production 1,800,000

KAY COUNTY

8-28-1w Andrews, Wentz Oil 1 950
36-28-1w School Land, Dewey & Hoffer 1 ..... dry
9-27-1w Burkholder, Polling & Denny 4 200
28-25-1w Lieganat, Barnsdall Oil 1 1415
Gardner, Gypsy Oil 2 48
Mahoney, Wentz Oil 15 414
16-29-1w Brown, Comar Oil 1-W 5448
17-29-1e Brockhouser, Vernon O. & G. 2 ...
28-25-1w Gardner, Gypsy Oil 3 700
Gardner, Gypsy Oil 4 1078
33-25-1w Tonkawa, Gypsy Oil 1 120
16-27-1w Slocum, Anolu Oil 3 ..... dry
Barr, Manahan et al 2 ..... dry
20-29-1w Day, Comar Oil 2 1362
16-29-1e School Land, Wentz Oil 2 43
28-25-1w Mahoney, Wentz Oil 13 114
35-25-1w Endicott, T. B. Slick 7 130
7-26-1w Kaney, Marland Oil 1 ..... dry
21-29-1w Harvell, Comar Oil 9 147
31-27-1w Cade, Marland Oil 1 ..... dry

Wells completed 20
Production 1228
Dry 5

GARFIELD COUNTY

22-24-6w Zalondek, Wilcox O. & G. 1... dry
13-22-4w Walker (N.), Sinclair Oil 6.... dry
24-22-4w Belveal, Sinclair Oil 21 ..... dry
36-22-4w Ed Kisner, Sinclair Oil 8 10
19-22-3w Kisner (W.), Sinclair Oil 37 .. 42
19-22-3w Kisner (W.), Sinclair Oil 12 .. dry
13-23-4w School Land, Mid-Cont. Pet. & Marland 65 150
18-22-3w Hartley, Sinclair Oil 46 360
19-22-3w L. Crews, Sinclair Oil 16 60
31-22-3w McLean, Chas. Knox 4 10
13-22-4w School Land, Mid-Cont. & Marland 46 214
18-22-3w Schroeder, Roxana Pet. 9-T.... 305
31-23-4w Bu-Vi-Bar Pet. 1 ..... dry
1-22-4w Seaman, Cowan et al 4 35
13-22-4w Walker (N.), Sinclair Oil 58 . 845
18-22-3w Hartley, Sinclair Oil 4 10
Hartley, Sinclair Oil 26 5
19-22-3w Kisner (E.), Sinclair Oil 18 .. 16
24-22-4w Belveal, Healdton Pet. 34 25
7-22-3w Lynds, Franchott 1 2
18-22-3w Hartley, Sinclair Oil 48 ..... dry
19-22-3w Kisner (W.), Sinclair Oil 36.. dry

Wells completed 29
Production 2087
Dry 7

PAYNE COUNTY

26-18-3e Liston, Empire G. & F. 5 70
6-17-4e Payne, Magnolia Pet. 1 ..... gas
33-20-5e School Land, Marland & Mid-Cont. Pet. 1 409
23-18-3e Boyles, Deep Rock O. & G. 4.. 10
26-18-3e Barth, Deep Rock O. & G. 5.. 175
4-19-1w Kinneman, Reiter-Foster 1 ... 45
3-18-3e Hall, Mid-Cont. Pet. 1 ..... dry
26-18-3e Waltman, M. T. C. Oil 5 20
32-20-5e Berry, Magnolia Pet. 2 57

15-19-5e Moore, Twin State Oil 1 75
7-18-5e Blue, Marland Oil 3 20

Wells complete 11
Production 881
Dry 1
Gas 1
Gas production 16,000,000

LINCOLN COUNTY

8-15-6e Owens, Magnolia Pet. 3 320
Earp, Mid-Cont. Pet. 8 100
16-15-6e School Land, Sinclair Oil 1 .. dry
10-14-5e Davenport townsite, Magnolia Pet. 1 ..... dry
8-15-6e Harp, Mid-Cont. Pet. 9 100
3-14-5e Belless, Magnolia Pet. 5 ..... dry
8-15-6e Owens, Magnolia Pet. 4 215
Hopewell, Gypsy Oil 1 ..... dry

Wells completed 8
Production 738
Dry 4

GRADY COUNTY

8-3n-5w Marland-Horton, Carter Oil 2 195
34-3n-5w Martin, Todd et al 2 75
17-3n-5w Burkes, Marland Oil 1 200
19-6n-7w Thomas, Gant & Arrowsmith 1-A 30
27-3n-5w Cochran, Magnolia Pet. 2 14
35-3n-5w Sham, Carter Oil 1 41
34-3n-5w Nation, Briscoe & Hall 2 20
Nation, Briscoe & Hall 3 35
10-5n-7w Kleeman, Badgett & Hughes 1 dry

Wells completed 9
Production 610
Dry 1

STEPHENS AND COTTON COUNTIES

26-2n- 4w Gann, Gant et al 1 ..... dry
21-1s-10w Johns, McBee & Heacock 1.. dry
34-1s- 8w Burke, Medlin et al ..... gas
2-2s- 8w Gilworth, Pace et al 1-A .... dry
30-1s- 8w Skelly-Brigham, Beard & Cobb 1 4 25
2-2n- 5w Graham, Carter Oil 1 27
24-1n- 9w Brown, Gypsy Oil 5 ..... gas
22-1s- 8w Warner, Harry Hanbury 1 .. 20
30-1s- 8w Skelly-Brigham, Beard & Cobb 2 25
21-1s-10w Johns, McBee & Heacock 1.. dry
20-1s- 8w Brittian, Malernee & Dunlap 2 ..... dry
Brittian, Safety First Oil 8.. dry
26-1s- 8w Williams, Pearce & Brown 1. gas
26-2n- 6w Church lot, Texhoma O. & R. 1 ..... dry

Wells completed 14
Production 97
Dry 7
Gas 3
Gas production 11,500,000

CARTER COUNTY

33-1s-3w Lusk, Humble O. & R. 8 126
34-1s-3w Newstaut, Magnolia Pet. 3 ... 100
8-2s-2e Pierce, Carter Oil 2 ..... gas
25-2s-2e McCoy, Hivick et al 1 ..... dry
31-2s-2e Bennett, Hilltop Oil 14 62
35-5s1w Joy, Humble O. & R. 1 ..... dry
23-2s-3w Lohman, Magnolia Pet. 11 40
Williams, Magnolia Pet. 1 ..... dry
7-2s-2w Watkins, Iowa Oil 3 1050
18-1s-3w N. Hardin, Magnolia Pet. 2 ... 663
34-1s-3w Parnell, Simpson & Fell 1 6
Snyder, Westheimer 2 120
3-2s-3w Smith, Skelly Oil 1 779
23-2s-3w E. Lohman, Magnolia Pet. 11.. 100
33-1s-3w Bumpass, Humble O. & R. Co. 3 445
2-1s-3w Calvery, Shermerhorn 1 96
3-1s-3w Richards, Humule O. & R. Co. 1 292
7-2s-2w Higgins, Coline Oil 7 ..... gas
15-2s-2w Cox, Magnolia Pet. 3 15
20-5s-1e Baptiste, Amerada Pet. 27 148
33-1s-3w Bumpass, Magnolia Pet. 5 50
Luck, Humble O. & R. 6 20
34-1s-3w McClish, Gypsy Oil 2 175
3-2s-3w Liles, Gypsy Oil 1 115
23-2w-3w Lohman, Magnolia Pet. 12-A. 455
17-2s-2w Riley, Humble O. & R. 1 ..... dry
3-2s-3w Pruitt, Wirt Franklin & Prairie rie ..... gas
16-2s-2w Higgins, Roxana Pet. 1-B 1

Wells completed 24
Production 4847
Dry 4
Gas 3
Gas production 7,500,000

MISCELLANEOUS

Noble County—
18-24-2w Coulter, D. W. Moore et al 1.. dry
16-24-1w School Land, Mid-Cont. Pet. & Marland 12 7
16-21-2w Trenary, Red Bank Oil 1 .... dry
18-24-1w School Land, Mid-Cont. Pet. & Marland 12 6
1-22-2w Stephenson, K-D Oil 1 ..... dry
White, K-D Oil 3 ..... gas

Dewey County—
7-18-15w Chronister, Meyers 1 ..... dry

Blaine County—
21-15-10w Eklemier, Okomo Oil 1 ..... dry

Kingfisher County—
17-15-6w Creaves, Chi Oil & Nicholas 1. dry

Latimer County—
7-6n-18e Hunt, P. & F. Pet. 1 ..... dry

Sequoyah County—
35-10-25e Barrow, Le Flore County G. & E. 1 ..... dry

LeFlore County—
35-7n-26e Graves, LeFlore County G. & E. 70 ..... dry
18-7n-27e Peck, LeFlore County G. & E. 71 ..... dry

Pontotoc County—
28-4n-7e Faulkner, Hughes et al 3 .... gas

Garvin County—
17-1n-3w Deryden, Mid Cont. Pet. 4.... dry

Caddo County—
11-5n-9w Lacky, Briscoe & Hall 1..... 50
Lacky, Lone Star Gas Co. 5.. 50
10-5n-9w Paw Kune, Magnolia Pet. 6.. 30
31-6n-9w Starkweather, English Drlg. Co. 1 ..... dry

Tillman County—
8-5s-15w Riverbed, Tipton et al 1..... dry
8-4s-18w Dixon, S. C. Canary & Barnsdall Oil 1 ..... dry

Love County—
2-6s-1e Anderson, Humble O. & R. 1.. dry

Grant County—
22-27-3w Lane, Blackwell O. & G. 2.... 53
33-26-3w Muegge, Gypsy Oil 1..... dry

McIntosh County—
18-11-14 Stidham, Tiger Mtn. Oil 3..... dry

Comanche County—
5-1n 10w Borovenski, Red Seal Refg. 1. dry
30-2n-9w Hardy, Magnolia Pet. 2..... dry

Jefferson County—
27-6s-5w Cline, Humble, O. & R. 1..... dry
33-6s-5w Seay, Gypsy Oil 8..... dry

Atoka County—
17-4s-11e Dabney, Hanson et al 1..... dry

Pottawatomie County—
20-6n-4e Hibbard, Croxton-Wrightsman et al 1..... dry

Marshall County—
24-5s-5e Arbuckle, United Eight Oil 8.. 15
Arbuckle, United Eight Oil 9.. 15
Arbuckle, United Eight Oil 10. 15

Washington County—
36-27-13 Lyman, Tidal Oil 13..... 16
Lyman, Tidal Oil 14..... 18
6-25-14 Mills, J. W. Callopy 1..... dry
31-28-14 Kneisley, Ayling & Mancill 8.. 25
16-28-14 Shatzer, Midco Oil 13..... 5

Nowata County—
36-29-14 Patton, M. B. Shufflin et al 1. 20
24-26-14 Pemberton, Mid-Kansas Oil 6. 10
32-27-16 Blakeslee, Sanders Oil 12..... dry

Rogers County—
29-24-17 Cochran, S. A. Lane 4..... 10
Bayless, Tidal Oil 6..... 5
Cochran, Frank Bushfield et al 1 ..... dry
20-24-16 Gillmore, Tidal Oil 14..... 110
20-24-16 Gillmore, Tidal Oil 15..... 1
Gillmore, Tidal Oil 3..... 3
29-24-17 Carey, W. N. Dannerburg 1.... 30

Wells completed 49
Production 491
Dry 26
Gas 3
Gas production 527,000

GRANT COUNTY

Rig

24-27-3w Birdston, Burns & Beasley 1.

Wells Drilling

18-29-3w Atkinson, Mississippi Valley Oil 1.
6-28-2w Snyder, Ohtot Dev. Co. 1.
26-28-3w School land No. 52, Marland Oil 1.
6-27-3w Barnard, Flannigan & Dedman 3.
22-27-3w Lane, Blackwell O. & G. 3.
22-25-4w Vallner, Cowden 3.

Shut Down

14-27-3w Howell, Western States Oil 1.
23-27-3w Flood, Larutan Fuel Co. 1.
34-26-4w Royce, Brazill & Moses 1.
16-26-3w Sherrer, Flannigan & Dedman 1.

Rigs 1, Drlg. 10, Total 11.

KAY COUNTY

Rigs

21-29-1w Duncan, Comar Oil 7-w, 14-w.
Pritoth, Comar Oil 6-w.
8-28-1w Andrews, Wentz Oil 2.
28-28-2e Huddleston, John Stark et al 1.
5-27-1w Savage, Polling et al 2.
8-27-1w Mitmore, Otstot et al 1.
12-26-2w North, Marland Oil 4-A, 9.
7-26-1w Kaney, Blackwell O. & G. & Marland 2.
29-25-1w Hock, Gypsy Oil 1.
1-26-2w Smith "A", The Prairie O. & G. 9.
17-29-1e Brockhouser, Vernon O. & G. 5.

Wells Drilling

1-26-2w Smith "A", The Prairie O. & G. 4.
16-29-1w Brown, Comar Oil 2-w, 3-w, 4-w. School land, Mid Cont. Pet. 3, 4.
20-29-1w Day, Comar Oil 3-w.
Day, The Texas Company 2, 4 ,5.
21-29-1w Duncan, Comar Oil 6.
Harvell, Comar Oil 5-w,6-w, 8, 10-w.
Pritoth, Comar Oil 8-w, 11-w.
22-29-1w Frost, Gypsy Oil 2.
Frost, Harris & Hahn 4.
29-29-1w Judd, Comar Oil 1.
32-29-1w Orr, Comar Oil 1.
17-29-1e Swinson, Harris & Hahn 2.
White, Marland Oil 1.
Dickerson, Marland Oil 2, 3.
20-29-1e Bradley, Carter Oil & Ona 2.
25-29-1e Smith, Strosnyder et al 1.
30-28-2w Smith, Mississippi Valley Oil 1.
5-28-1w Bechtel, Comar Oil 2-w, 7.
Johnson, Comar Oil 1-w.
McCullough, Comar Oil 1-w, 2, 5.
8-28-1w Horne, Comar Oil 2-w.
27-28-1w Walker, Simms Pet. 1.
4-27-1w Kelly, Arkansas Fuel Oil 6.
Case, Polling & Denny 5.
5-27-1w Jameson, Blackwell O. & G. 3, 4.
8-27-1w Boggs, Tidal Oil 2.
9-27-1w Geiger, Blackwell O. & G. 6-A.
Burkholder, Polling & Denny 5.
15-27-1w Skelton, Hope Oil 1.
19-27-1w Gaylor, Marland Oil 1-A.
28-27-1e Buesaing, Ballentine et al 1.
3-27-2e Baker, Mississippi Valley Oil 2.
26-27-2e Harper, Mummert et al 1.
1-26-2w Richmond, Marland Oil 1-B.
Higgins, Marland Oil 1.
12-26-2w McCullough, Marland Oil 2.
North, Marland Oil 5-A, 8.
6-26-2w North No. 2, Marland Oil 1.
North, No. 3, Marland Oil 1.
Glasgow, National Union Oil 1.
7-26-1w Kaney, Blackwell O. & G. & Marland Oil 1-B.
21-26-1e Keathley, A. D. Morton et al 1.
32-26-2e McNeal, Ponca Lee Oil 1.
15-25-2w Thomas, Marland Oil 2, 6.
21-25-1w Coyle, Philmack Oil 1.
28-25-1w Llegerat, Barnsdall Oil 2, 3, 4.
Gardner, Gypsy Oil 5.
Becker, Skelly Oil 2, 3, 4.
Siler, T. B. Slick 1.
Mahoney, Wentz Oil 11, 12.
35-25-1w Endicott, T. B. Slick 1-E.
17-25-2e Arrow, Marland Oil 10-A.
18-25-2e Walkingsly, Marland Oil 1.
20-29-5e Forest Chouteau, Bu-Vi-Bar Pet. 1.
28-25-1w Siler, The Texas Co. 3, 4.

Shut Down

16-29-1w Hanzel, Harris & Hahn 1.
21-29-1w Pritoth, Comar Oil 2.
28-29-1w Bixby, Comar Oil 1.
5-28-1w Townsite, Braman Oil 1.
Biddle, Comar Oil 6-w.
Orr, Comar Oil 1, 5-w.
Horne, Comar Oil 3.
8-28-1w Horne, Comar Oil 4.
6-28-1e Wolfe, McComas et al 1.
11-28-1e Lowery, Oklahoma Northern O. & G. 1.
35-28-3e Coleman, Ingram & Wilson 2.
4-27-1w Moore, Schouwald et al 1.
9-27-1w Burkholder, The Texas Co. 2.
1-27-3e Robinson, George Miller 1.
12-26-2w North, Marland Oil 4.
28-26-1w Barclay, Tom Palmer et al 1.
15-25-1w McDonald, Tonkawa Dev. Co. 1.
28-25-1w Llegerat, Barnsdall Oil 5.
32-25-1w Goodson, Gypsy Oil 1.
4-25-2e Poureyes, Marland Oil 10-A.

Rigs 13, Drlg. 98, Total 111.

NOBLE COUNTY

No Rigs

Wells Drilling

1-24-1e 101 Ranch, George Miller 1.
22-23-2w Brumfield, Mid Cont. Pet. 16.
1-22-2w White, K-D Oil 4.
18-22-2w Pfrimmer, Hartman & Skaer 1.
15-21-2w Sams, Magnolia Pet. 1.

Shut Down

29-24-1w Ree, Mid Cont. Pet. 6.
7-21-1w Williams, R. L. Corley 1.

Drilling 7, Total 7.

GARFIELD COUNTY

Rigs

9-24-6w White, Pulse & Beamer 1.
14-24-3w Gorusch, Sager Oil 1.
24-24-3w Disney, Failing & Lawson 1.
18-22-3w Schroeder, Roxana Pet. 10-T.
13-22-4w Denker, Sinclair Oil 27.

Wells Drilling

10-24-4w Meyers, Sinclair Oil 1.
32-24-4w Brunken, Shaffer-Gardner 1.
34-24-3w Reed, Roxana Pet. 1.
6-23-4w Chevelier, Haley, Garber & Pulse 1.
29-23-4w Bunker, Roxana Pet. 1.
19-23-3w Garber, Marland Oil 1.
13-22-4w Walker (N), Sinclair Oil 26, 43, 46, 62, 63, 64, 65, 66, 67.
14-22-4w Dively, Sinclair Oil 5.
36-22-4w E. Kisner, Sinclair Oil 9.
Metchner, Sinclair Oil 36.
18-22-3w Schroder, Roxana Pet. 28, 11-L.
Hartley, Sinclair Oil 37, 39, 40, 52, 53, 54, 61.
Shaffer, Sinclair Oil 7-A.
19-22-3w Kisner (W), Sinclair Oil 13, 31, 33, 38.
30-22-3w Campbell, Sinclair Oil 22.
Windler, Sinclair Oil 11.
13-21-5w Smith, Tidal Oil 1.
5-21-3w Cain, Penders Pet. 2.
6-21-3w Woods, Imo Oil 1.
22-21-3w Detwiler, Slick Harrington et al 1.
7-20-6w Semrad, O. O. Owens 1.
2-20-5w Fee, Sinclair Oil 1.
9-20-4w Loman, Marland Oil 1.
12-20-4w Miller, Marland Oil 1.

Shut Down

3-22-5w Swinery, Ashby & Barr 1.
13-22-4w Walker (N), Sinclair Oil 29-A.
18-22-3w Schroder, Roxana Pet. 13-W.
19-22-3w Kisner (E), Sinclair Oil 15.
2-21-7w Montgomery, Frank Frantz 1.
31-21-5w Vanderwork, E. A. Summers 1.
12-21-4w Schriver, People et al 1.
9-21-3w Bowers, Penders Pet. 1.
13-20-4w Faramel, Summers et al 1.

Rigs, 5; drilling, 51; total, 56.

OSAGE COUNTY

Rigs

10-28-11 New England O. & P. L. 1.
3-27-5e The Texas Company 1.
7-27-6e Gypsy Oil 1, 2.
Phillips Pet. 1, 2, 3, 4, 6, 13, 9.
34-27-6e Kewanee O. & G. 2.
Kewanee O. & G. 2.
Kewanee O. & G. 3.
Kewanee O. & G. 1.
20-26-6e Phillips Pet. 10.
28-26-6e Skelly Oil 1, 2, 3, 4, 5, 6, 7.
The Texas Company 1, 2, 3, 4.
29-26-6e Phillips Pet. 16.
12-25-5e Midland Oil 1.
21-25-6e Sinclair Oil 2.
10-25-7e Mid Cont. Pet. 1.
27-26-8e I. T. I. Oil 350, 351.
31-25-8e A. G. Oliphant et al 1.
Western Osage & Wrightsman 4.
26-25-9e Peters Pet. et al 1.
8-25-11 I. T. I. Oil 348.
16-26-4e Barnsdall Oil 1.
6-24-8e Carter Oil 4.
13-24-8e I. T. I. Oil 346.
30-24-9e I. D. Simmons 2.
1-23-8e Tidal Osage Oil 4.
12-23-8e Peters Pet. 12.
Twin State Oil 3.
13-23-8e Twin State Oil 9.
6-23-9e Comar Oil 2.
4-22-11 Kewanee O. & G. 17.
10-21-10 Mid Kansas Oil 3.
14-21-10 Lillystrand et al 4.
20-21-11 Oklahoma Mineral Gas 761.
17-21-12 Kewanee O. & G. 4.
27-25-6e The Prairie O. & G. 1.

Wells Drilling

15-29-10 I. T. I. Oil 13.
33-29-10 I. T. I. Oil 344.
15-29-11 Ross & Brown 14.
31-29-12 A. D. Simmons 3.
27-28-6e Laurel O. & G. 1.
27-28-7e Tidal Osage Oil 19.
26-27-5e Mid-Kansas Oil 11.
7-27-6e Phillips Pet. 12.
20-27-6e Peters-Oliphant 1.
28-27-6e Gypsy Oil 2.
33-27-6e Mid-Kansas Oil 6.
5-27-11 Blackwell O. & G. 1.
35-27-11 Knupp Oil 11.
6-26-5e Jess Moore 1.
20-26-6e Phillips Pet. 3, 4.
21-26-6e Lewis Oil 11, 12, 13.
2-26-11 Knupp Oil Co. 2.
27-25-5e Gypsy Oil 1.
16-25-8e New England O. & P. L. Co. 1.
30-25-8e Lewis Oil 6, 7.
31-25-9e I. T. I. Oil 1.
25-25-11 Devonian Oil 3.
5-24-5e Barnsdall Oil 1.
15-24-6e Marland Oil 1.
5-24-8e Douglass Oil 1.
11-24-8e Barnsdall Oil 1.
13-24-8e The Texas Company 2.
15-24-8e McCuen & Marland et al 6.
21-24-8e Marland Oil 1.
28-24-8e Axelrod et al 2.
33-24-8e Continental Oil 22.
5-23-7e Sinclair Oil 1.
35-22-8e Skelly Oil & Moore 2.
1-22-9e Superior & Sterling 8.
11-21-7e Gypsy Oil 1.
2-21-8e Barnsdall Oil et al 4.
32-21-12 F. A. Gillespie & Sons 4.
25-20-10 Sand Springs Home 1.
5-20-11 Sand Springs Home 7.
Pioneer Pet. 7, 9.
5-20-12 Barnsdall Oil 18.
F. A. Gillespie & Sons 8.

Shut Down

3-26-6e Marland et al 1.
11-23-11 A. H. Pettigraves 5.
28-22-12 Kanupp et al 1.

Rigs 52, Drlg. 50, Total 102.

PAWNEE COUNTY

Rigs

22-23-4e Zoldoskie, Donahue & Carter Oil 4.
24-21-7e Mullendore, Minnehoma Oil 11.
9-20-6e Fugate, Magnolia 3-B.
32-20-6e Vogler, Magnolia Pet. 4.
L. Vogler, Magnolia Pet. 1.
Salle, Twin State Oil 3.
26-20-6e School land, Riverside O. & G. 1.
9-20-7e Clark, Ora Steen et al 1-A.
7-20-8e Childers, Minnehoma & Sheltz 4.

Wells Drilling

10-20-7e Eichelberger, The Prairie O. & G. 1.
30-23-3e Gilbert, Magnolia Pet. 1.
9-22-3e Arketa, Magnolia Pet. 3.
10-22-3e Tucker, Magnolia Pet. 1.
33-24-5e Hines, Mid-Kansas Oil 1.
27-23-4e Brian, J. L. Donahue 1-A.
26-22-5e Redd, Bu-Vi-Bar Pet. 1.
35-22-6e Dobson, Devonian Oil 3.
21-22-7e Canfield, Arkansas Fuel Oil 2.
22-22-7e ———, Victor Oil 1.
16-21-6e School land, 101 Ranch Oil 1.
16-21-7e School land, Ed Reese et al 1.
23-21-7e Bailey, J. H. Markham 2.
Bailey, J. H. Markham 6.
24-21-7e Mullendore, Minnehoma Oil 4, 10.
31-21-8e Havercamp, J. B. Grieves 5.
32-21-8e Sigon, Adamson C. O. & G. Co. 8.
9-20-6e S. M. Fugate, Magnolia Pet. 3.
10-20-6e Wilson, Privett Drlg. Co. 1.
16-20-6e Platt, Shaffer O. & R. Co. 2.
16-20-6e Burgman, Jim Glenn Oil 4.
21-20-6e Freeman, Josey Oil 6.
32-20-6e H. Vogler, Magnolia Pet. 1.
3-20-8e Arnold, Tidal Oil 10.
6-20-8e Cotton, Shaubell & Breslyn 3.
10-20-8e Mullendore, Sinclair Oil 12.

Shut Down

28-20-6e White, Magnolia Pet. 1.
4-20-7e Hallett townsite, W. A. McCabe et al 1.
11-20-7e Rogers, Block & Carnahan 1-A.
18-20-10 Black, B. E. Kennedy 1.

Rigs, 9; drilling, 31; total, 40.

PAYNE COUNTY

Rigs

21-19-5e Moses, Olean Pet. 1.
32-18-3e Widdows, Garber, Pulse & Gloyd 1.
5-17-4e Sharrum, Shaffer O. & G. Co. 5.
6-17-4e Kirk, Home Gas Co. 3.

Wells Drilling

6-20-5e Babcock, Stacey & Vaughn 1.
26-20-5e Goodchief, Champlin Refg. Co. 1.
28-20-5e Williamson, Magnolia Pet. 1.
33-20-5e Pollock, Gypsy Oil 4.
School land "F", Marland and Mid-Cont. Pet. 1.
Miner, Marland & Mid Cont. Pet. 2.
Moebius, Marland and Mid-Cont. Pet. 3.
12-19-1w Combs, Tidal Oil 1.
5-19-5e Martin, Magnolia Pet. 1.
8-19-5e Garr, Magnolia Pet. 5.
E. Hughes, Magnolia Pet. 1.
Hughes, Magnolia Pet. 1.
10-19-5e Mullens, Pure Oil 2.
12-19-5e Crockett, Sinclair Oil 12.
36-19-5e Lond, Josey Oil 5.
35-19-5e Laughlin, Josey Oil 12.
6-19-6e Quay townsite, Noble O. & G. 1.
23-18-1e Hilber, Twin State Oil 1.
23-18-3e Shannon, Deep Rock O. & G. 3.
26-18-3e Liston, Empire G. & F. 6.
Waltman, T. C. M. Oil 3, 6.
Broyles, New England O. & P. L. Co. 4.
31-18-4e Thomas, Magnolia Pet. 1.
32-18-4e Ballard, Mulberry Oil 3.
Ballard, Skelly Oil 3.
30-18-5e Cochran, Hale & Cassidy 3.
8-18-6e Welch, Consolidated Drlg. Co. 1-A.
5-17-4e Sharrum, Mulberry Oil 4, 5.
Sharrum, Shaffer O. & R. 4.
3-17-5e Swartout, Shaffer O. & R. 1.

Shut Down

32-20-5e Pollock, Gypsy Oil 3.
21-19-1w Lewis, Ponca O. & G. 1.
1-18-5e Laughlin, Josey Oil 4.

Rigs 4, Drlg. 35, Total 39.

CREEK COUNTY

Rigs

4-18-7e Atkins, Sand Springs Home 27.
4-17-8e Lasley, McCulloch et al 1.
16-17-8e Morrison, Shaffer O. & R. 2.
28-17-8e Frank, Devonian & Billingslea 1.
23-16-8e Peters, T. C. M. Oil 1.
20-15-8e Beaver, Skelly Oil 1-A.
26-15-8e Narchubby, Bu-Vi-Bar Pet. 4.
30-15-8e Benjamin, Lima O. & G. Co. 3.
23-14-8e Hemmitt, C. G. Tibbens 1.
30-14-8e Fixico, Gypsy Oil 1.
Kernal, Pure Oil 4.
1-1919e Tutrell, National Refg. Co. 1.
7-19-9e Tahkaney, Dixie Oil 1.
24-18-10 Unallotted, Radcliff Oil 1.
1-18-11 Land, The Texas Co. 3.
27-18-11 Unallotted, Riverbed Oil 1.
10-17-9e Lindsey, Wilcox O. & G. 2.
6-17-10 Sims, Nowata O. & R. 1.
13-17-10 Tiger, Cumberland et al 1.
Brink, Ted Ray Oil 2.
15-17-10 Gwin, Elison et al 1.
24-17-10 Tahkaney, J. H. Wright 13.
30-17-10 Sneed, Independent O. & G. 2.
19-17-11 Lewis, Pioneer Pet. 1.
7-16-9e Sango, W. H. Davis 1.
21-16-9e Hendrickson, Jackson & Wise 3.
28-16-11 Barnett, Sheridan Oil 1.
18-15-9e Mathews, C. P. Davis et al 1.
30-15-9e Unallotted, C. G. Tibbens 32.
31-15-9e Friday, Mid Cont. Pet. 1.
Lucus, C. G. Tibbens 3.
3-14-10 Fleming, Gray Oil 1.
16-14-10 H. Bear, Atlantic O. P. 1.
20-14-10 Scott, R. D. Donnelly et al 2.
32-14-10 Fee, Henry & Mundy 1.
Walker, Mid Cont. Pet. 7.
Jones, T. B. Slick 3.
35-14-10 Ricks, Bassett et al 1.

Wells Drilling

6-18-7e Rector, The Prairie O. & G. 52.
10-17-9e McMahon, The Prairie O. & G. 2.
3-17-9e Hope "B", The Prairie O. & G. 1.
31-15-8e Bryden, The Prairie O. & G. 2.
5-19-8e Noble, Bartlett & Mann 3.
13-19-8e Peters, Burlengane & Sharp 10, 11.
Ross, Gled Oil 6.
Weaver, The Texas Co. 4.
14-19-8e Miller, Devonian Oil 6.
1-18-7e Jack, Burnett et al 1.
6-18-7e Jones, Magnolia Pet. 10.
Riverbed, Riverside Oil 3.
Dale, The Texas Company 31.
7-18-7e Ben Vance, Magnolia Pet. 28.
8-18-7e Yarhola, Riverside O. & R. 1.
Keim, Silurian Oil 27, 28.
17-18-7e Powell, Sinclair Oil 20.
32-18-7e Derrisaw, Magnolia Pet. 6.
Drumright, Shaffer O. & R. 6, 11.
35-18-7e Jones, Magnolia 2.
5-18-8e Perryman, New England O. & P. L. 1.
30-18-8e Holman, J. O. Walters et al 1.
4-17-7e Richards, Tidal Oil 20.
14-17-7e M. Strussee, Mid Cont. Pet. 10, 25.
16-17-7e Dacon, Sinclair Oil 18.
17-17-7e H. Tiger, Magnolia Pet. 1.
11-17-8e Watson, Bu-Vi-Bar Pet. 1.
14-17-8e Freeman, Alvard & West 3.
16-17-8e Morrison, Shaffer O. & R. 1.
20-17-8e Scruggs, Devonian & Billingslea 1.
21-17-8e Scruggs, Burk-Greis & Darby Pet. 2.
Scruggs, Devonian Oil 1.
Kano, The Texas Company & Transcontinental Oil 1.
9-16-8e Myers, Red Bank Oil 6.
21-16-8e Arsoynlee, Peters Pet. 4.
Johnson, Tidal Oil 3.

23-16-8e Jones, T. B. Slick 1.
6-15-7e Wattie, Magnolia Pet. 1.
Steele, Pure Oil 2.
21-15-7e Hayne, Barnsdall Oil 1.
35-15-7e Bigpond, Devonian Oil 1.
Tiger, R. J. Jennings 2.
Bigpond, Olean Pet. 1.
2-15-8e Miles, Wilcox O. & G. 8.
23-15-8e E. Yarhola, The Texas Company 3.
25-15-8e Jefferson, C. G. Tibbens 1.
27-15-8e L. Washington, C. G. Tibbens 1.
30-15-8e Lewis, Magnolia Pet. 4.
17-14-8e Cooper, Shaffer O. & R. Co. 1.
24-14-8e Bear, C. G. Tibbens 1.
30-14-8e McGilbray, Olean Pet. 1-A.
7-19-9e Lewis, C. L. McMahon 1.
17-19-9e Murrell, Mid-West & Gulf 2.
18-19-9e Clark, Roxana Pet. 1.
28-19-9e Boyd, Bartlett Dev. Co. 1.
33-19-9e Atkins, Olean Pet. 1.
34-19-9e Derrisaw, Smith & Mann 1.
19-18-9e Sherman, H. U. Bartlett 1.
3-18-10 Deere, Smith & Hanlon 1.
5-18-10 Williams, Sherry & Holmes 1.
31-18-10 Sacwanshee, White Eagle & Madden 1.
1-18-11 Land, The Gypsy Oil 5, 8.
Richards, Gypsy Oil 16, 17, 18.
Land, Riverland Oil 4, 5.
Strip, Mid Cont. Pet. 3.
3-18-11 Leader, Gray Oil 4.
11-18-11 McKim, Cradall & Murta 1.
15-18-11 Snow, Redgraves et al 1.
22-18-11 Unallotted, W. J. Cole 1.
32-18-11 Milla, Crandal & Murta 1.
4-18-12 Saunders, Devonian Oil 1.
6-18-12 Townlot, Day Brothers 3.
Sango, Sunray Oil 10.
11-18-12 Bigpond, W. J. Sherry et al 1-A.
18-18-12 Bigpond, Regal Oil 4.
1-17-9e Drew, McCulloch Oil 1.
3-17-9e Simmons, The Texas Company 5.
14-17-9e Smith, G. & M. Oil 1.
21-17-9e Charcotenne, Wood & Farren 4.
4-17-10 Francis, Dixie Oil 1.
Francis, Independent O. & G. 1.
8-17-10 Pemberton, Nowata & Independent 2.
Pemberton, W. S. Turman 1.
10-17-10 Hay, O. P. Stover 1.
13-17-10 Strip, J. R. Cole et al 1.
Fulson, Pontiac Oil 1.
24-17-10 Bucktrot, Pioneer Pet. 11.
Dawson, J. H. Wright 13.
Tahkaney, J. H. Wright 11.
32-17-10 Bucktrot, Skelly Oil 4.
8-17-11 Freeman, M. Ireland 7.
9-17-11 Inman, Eliza Tim Oil 1.
16-17-11 Broadnox, Misener & Reesman 2, 3.
17-17-11 Wocoche, Shaffer O. & R. 7.
32-16-9e Vaughn, Graham Oil 1.
33-16-9e Vaughn, O'Rourke et al 2.
36-16-9e Allen, Williams & Bell 1.
4-16-10 Yellowhead, Independent O. & G. 1.
4-16-12 Berryhill, Future Dev. Co. 1.
20-15-9e Montgomery, C. G. Tibbens 1.
30-15-9e Unallotted, C. G. Tibbens 31, 33, 34.
32-15-9e Drake, C. G. Tibbens 1.
6-15-10 Allen, Rolland Oil 1.
8-14-9e Barnett, C. G. Tibbens 1.
9-14-10 Tiger, Johnson & Ashe 1.
11-14-10 Webb, H. George et al 1.
16-14-10 Bear, Atlantic O. P. 3, 2.
18-14-10 Dixon, Wilcox O. & G. 3.
20-14-10 Scott, C. F. Noble 1.
Elrod, Quinlan & Henry 2.
32-14-10 Jones, T. B. Slick 2.
Shut Down
27-18-10 Allen, Vaughn & Wheeler 6.
14-18-11 Tiger, O. N. White 1-A.
18-18-11 Bruner, Posey Short et al 2.
32-18-11 Frews, Cross et al 1.
6-18-12 Sizemore, Benson 2.
6-18-12 Townlot, Day Brothers 1.
22-17-9e Harjoche, T. P. C. & Co. 2.
2-17-10 Self, Arnold et al 1.
11-17-10 Smith, O. M. Ireland 1.
16-17-10 Thomas, O. P. Stover 1.
32-17-10 Yellowhead, Skelly Oil 2.
1-15-10 Asbury, H. C. Wilson 1.
27-15-10 Frank, Buckholtz & Norman 1.
36-14-9e Lampkins, Wood Oil 1.
Rigs 38, Drlg. 137, Total 175.

LINCOLN COUNTY
Rigs
8-15-6e Varner, Phillips Pet. 2.
16-13-6e School land, Mid Cont. Pet. 1.
Wells Drilling
34-17-2e Lukenbill, Wentz Oil 1.
34-17-3e Swaggart, Mote et al 1.
31-17-4e Scott, Roxana Pet. 1.
33-17-4e Griswald, Mid-Kansas Oil 1.
30-17-5e West, Carter Oil 1.
31-17-5e Cook, Shaffer O. & R. 1.
19-16-4e Morris, Olean Pet. 1.
5-16-6e Van Camp, T. P. C. & O. Co. 1.
25-15-3e Lillibridge, Wilcox O. & G. 1.
16-15-4e School land, Empire G. & F. 1.
27-15-6e Foster, J. A. Hull Oil 1.
34-15-6e Hemming, Amerada, Madden & Madden 1.
8-14-4e Gillian, Magnolia Pet. 1.
9-14-5e Ritchie, Magnolia Pet. 1.
21-14-5e Love, Pure Oil 1.
22-14-5e Craig, The Texas Company 1.
27-14-5e Garrett, Sinclair Oil 1.
9-14-6e Teter, Mid Cont. Pet. 1.
16-13-5e School land, Amerada Pet. 1.
23-13-7e Byrd, Sinclair Oil 1.
1-12-5e Thompson, Independent & McCulloch 1.
13-12-6e Strip, Mid Cont. Pet 1.
8-15-6e Selby, The Prairie O. & G. 1.
35-14-6e White, The Prairie O. & G. 1.
Shut Down
8-12-5e Richardson, Barnsdall Oil 1.
Rigs 2, Drlg. 25, Total 27.

OKFUSKEE COUNTY
Rigs
10-13-10 Deere, E. R. Black Oil 1.
2-12-11 Sullivan, J. J. Deaner 1.
3-12-11 Morgan, Barnsdall Oil 4.
10-12-11 Randall, Barnsdall Oil 4.
32-12-11 McCoy, Josey Oil 17.
35-11-9e Wind, Gilcrease Oil 2.
35-11-9e Berryhill, E. L. Robinson 1.
14-11-10 Fixico, Pure Oil 1.
15-11-11 Jacobs, Champlin Refg. 5.
23-11-11 Adams, E. P. Humphrey 1-A.
35-11-11 Jackson, Atlantic O. P. Co. 3.
6-10-9e Brown, McCulloch Oil et al 1.
18-10-11 Lockhart, Amerada Pet. 2.
10-12-11 Hooks, The Prairie O. & G. 1.
Wells Drilling
16-13-8e P. Harjo, Magnolia Pet. 1.
18-13-8e Ford, Amerada & Barnsdall 1.
17-12-7e Hennechuchee, Mid-Kansas Oil 1-A.
7-13-10 Micco, L. E. Cooper & R. D. Donnelly 1.
17-13-10 Manwaring, Darby Pet. 1.
25-12-9e Leedy, T. A. Johnson 1.
11-12-11 West, E. L. Robinson 1.
13-12-11 Harjo, Amerada Pet. 16.
28-12-11 Unallotted, Josey Oil 1.
32-12-11 Hulsey, Josey Oil 4.
33-12-11 McCoy, Josey Oil 13, 15.
Stubblefield, Josey Oil 2.
35-11-9e Wind, Atlantic O. P. 1.
36-11-9e Buck, Amerada Pet. 1.
Micco, Sinclair Oil 2.
14-11-10 Buckley, Terrien & Balliere 1-A.
14-11-11 Ingram, Champlin Refg. 1.
15-11-11 Washington, Champlin Refg. 2.
19-11-11 Barnett, Riverland Oil 1.
23-11-11 Likowski, J. J. Deaner 1-A.
33-11-11 Grayson, Kingswood Oil 1.
2-10-9e Deer, E. L. Robinson 1.
16-10-9e Bruner, Independent O. & G. 1.
17-10-9e Carolina, McCulloch Oil 1.
26-10-10 Butler, Schrock & Jameson 1.
Shut Down
15-13-8e Scott, Binham & Smith 1.
8-12-7e Rogers, Campbell O. & G. 1.
14-13-9e Callahan, Derby Pet. 2.
8-12-10 Yarhola, Blakely et al 1.
23-12-10 Harjo, Blakely et al 1.
3-12-11 Morgan, McMahon Oil 2.
8-12-11 Scott, J. M. Kessler 1.
4-11-10 Siddons, Moose & Daniels 1.
15-10-10 Canard, Hobert Drlg. Co. 1.
11-10-11 Hill, Umburn 1.
7-10-12 Birdcreek, Eagle Picher Lead 3.
Rigs 14, Drlg. 37, Total 51.

TULSA COUNTY
Rigs
6-19-10 McKee, Superior Oil 3.
7-19-10 Burnett, Superior Oil & Swift 3.
1-19-11 Davis, Sand Springs Home 1.
32-19-11 Unallotted, Sapulpa Fuel Co. 1.
Unallotted, Sapulpa Fuel 2.
34-19-11 Anderson, Riverland Oil 3.
15-19-12 Woodward, McCarthy et al 1.
35-19-12 Colbert, W. Atkins et al 1.
7-16-14 McKay, The Texas Company 1.
Wells Drilling
6-19-10 Perryman, Davis & Wallace 1.
17-19-10 Unallotted, Craig et al 1-A.
24-19-10 Ragen, Mid-Kansas Oil 1.
29-19-10 Weaver, Dillenback et al 1.
13-19-11 London, Sand Springs Home 5.
15-19-11 Fife, Gledden et al 1.
17-19-11 Smith, Hutt & Hutt 6.
23-19-11 Unallotted, Sand Springs Home 2.
36-19-11 Unallotted, Hass & Gledden 1-A.
Franklin, Wood & Williams 2-A.
29-19-12 Unallotted, Continental Oil 3.
3-18-13 Cooper, Barnsdall Oil 2.
34-17-13 Call, T. Green et al 2.
12-16-13 Hayden, W. O. Dickinson et al 5.
Brown, Tidal Oil 1.
7-16-14 Jones, Savoy Oil 3.
Shut Down
16-18-13 Rentie, L. C. Hivick 3.
13-16-12 Unallotted, Winemiller et al 1.
5-16-13 Strip, J. L. Selby 2.
1-17-13 Taylor, E. A. Hawley 1.
Rigs 9, Drlg. 20, Total 29.

OKMULGEE COUNTY
Rigs
3-15-11 Rorschach, Enfisco Oil 2.
9-15-12 Fortyfour, C. L. McMahon 2.
Bighead, W. B. Pine 1.
24-15-12 Blair, C. E. Campbell et al 3.
4-14-12 Adams, Devonian Oil 2.
28-13-11 Roberts, J. H. Reboid 2.
29-13-11 Milroy, Wigton-Long & Mid Cont. 2.
4-11-12 Hawkins, Weir 4.
32-11-12 Ashbury, Colorado O. & G. 2.
16-15-14 McKinney, McCulloch Oil 3.
21-15-14 Garnett, McCulloch Oil 8.
9-14-15 Sells, J. L. Powell 5.
28-13-14 N. Doyle, Columbus Drlg. Co. 6.
35-13-14 Wilson, W. M. Hewitt 5.
Wells Drilling
6-12-12 Wood, The Prairie O. & G. 1.
19-16-13 Grant, Riverland Oil 1.
29-16-14 Phillips, Anglo-Texas Oil 1.
3-15-11 Fee, Clover et al 8.
23-15-11 Bruner, Le Bean et al 1.
Kimble, J. J. Schock 1.
34-15-11 Coleman, The Texas Company 13.
28-15-12 Hill, Jordan, Thompson et al 5.
4-14-11 Lunsford, Sidwell Drlg. Co. 2.
24-14-11 Sango, Abbott, Dillar & Carter Oil 1.
4-14-12 Burton, W. B. Pine 1.
19-13-11 Phillips, Henry Oil 1.
23-13-11 Murrell, Barnsdall Oil 8.
27-13-11 Jones, Diamond Oil 1.
28-13-11 Jones, The Texas Company 2.
32-13-11 Thomas, Denver P. & R. 9.
11-13-12 Budleman, King & Jackson 3.
32-12-12 Thomas, E. L. Black 2.
5-11-12 Jackson, C. O. Buckler 18.
7-11-12 Holmes, Moffitt et al 4.
29-11-12 Beams, J. M. Kessler et al 1.
17-15-13 Bell, A. W. Kirkland 3.
19-15-13 Depriest, Terrien & Balliere 2.
3-15-14 Rentie, W. B. Pine 2.
9-15-14 Corbray, W. B. Pine 3.
16-15-14 Alexander, McCulloch Oil 4.
M. Bruner, The Texas Company 10, 11, 12, 13.
30-15-14 Rowe, Invader Oil 5.
7-14-13 Lacey, Kingswood Oil 1.
30-14-13 Dunbar, A. G. Hazlett et al 1.
19-14-14 Bradford, Simons et al 10.
22-14-14 Wright, Clarion Oil 8.
35-14-14 Anderson, J. L. Selby 34.
18-14-15 Rentie, A. F. Boone et al 4.
Rentie, Gallagher 3.
19-14-15 Rentie, M. S. Mussellen 1-A.
32-14-15 Durant, J. R. Parks 6.
32-13-13 Bowman, Sheldon Oil 1-A.
15-13-14 L. Doyle, Simms Oil 19.
21-13-14 Durant, Cumbland Pet. 5.
24-13-14 Thornsberry, Iron Mtn. Oil 12.
29-13-14 Wiley, F. E. Cuseck et al 8.
17-12-13 Burgess, W. B. Pine 1.
11-11-13 Wade, C. R. King 1.
20-16-12 Fee, Crider 1.
26-16-12 Lowe, Baker et al 1.
Shut Down
21-16-14 Rowe, Atlas Oil 3.
34-15-12 Tobler, Shaffer O. & R. Co. 1.
8-14-12 Adams, Abbott, Dillard & Empire 1.
3-13-11 Anderson, Vincent et al 1.
27-13-11 Schott, Rebold Drlg. Co. 2.
3-11-12 Conway, L. McMillen et al 1.
4-11-12 Hawkins, Roy Parkhill 1.
3-15-14 Rentie, Acta Oil 1.
8-15-14 Rowe, Hennessey et al 3.
16-15-14 McKinney, F. Sheedy 4.
19-15-14 Harrison, Custer Oil 7.
24-14-13 Dres, X-Ray Oil 3.
2-14-14 Starr, E. A. Hutchinson 5.
9-14-14 Stevens, W. A. George 12.
27-14-14 Flint, J. C. Lampert 4.
32-13-14 Lyden, Haynes et al 4.
6-13-15 Laster, Kingwood Oil 4.
28-13-15 Hutton, O. T. Stout et al 2.
Rigs 14, Drlg. 67, Total 81.

MUSKOGEE AND WAGONER COUNTIES
Rigs
20-16-15 Taylor, Sevreda Oil & Gas & Boyle 1.
8-15-17 Rector, C. M. Whaley et al 1.
16-15-17 Grimmett, M. S. Musselman 1.
17-15-17 McIntosh, H. H. Francis et al 3.
13-14-17 Washington, Indian Capitol O. & G. 1.
5-14-19 Crittenden, C. M. Bradley 3.
Wells Drilling
20-18-15e Pike, Parry Smith et al 1.
30-18-15 Drew, Thrift et al 3.
31-18-16 Woodward, A. E. Carter 2.
28-18-17 Childers, R. M. Lear 1.
6-17-15 Kelly, A. O. Dickinson 3.
12-17-15 Haynes, Eastern Oklahoma Oil 1.
2-17-16 McIntosh Swanson Brothers 1.
25-17-15 Tucker, Coberling et al 3.
26-17-16 Drew, W. B. Pine 5.
20-17-17 Perryman, J. F. Blackwood 5.
28-16-16 Roberts, Mitchell Oil 1.
35-16-17 Marshall, Denton & Marshall 1.
31-16-18 McIntosh, J. W. Hale et al 1.
29-15-15 Morris, Corse & Anders 1.
Morris, E. Price 4.
30-15-15 Vanderslice, Culp et al 6.
Durant, Jack Summers 1.
Perry, Unknown 1.
31-15-15 Drew, E. A. Hutchinson et al 6.
32-15-15 Vanderslice, Plymouth Pet. 1.
33-15-15 Jefferson, Future Dev. Co. 1.
1-15-16 Harrison, J. O. Tilley 1.
8-15-17 Monday, W. H. Sommerville 1.
17-15-17 Lewis, Jolly-Ogg Oil 1.
Sango, W. R. Sommerville 1.
Manuel, H. E. Williams 5.
20-15-17 Sango, Paraffine Oil 1.
28-14-16 Brown, Jolly-Ogg Oil 1-A.
28-14-17 Dean, E. C. Dooley et al 2.
6-14-18 Sango, Tidal Oil 6.
5-14-19 Goodrich, C. M. Bradley 3.
14-13-18 Foreman, Herbert Oil 1.
Shut Down
19-17-16 Bruner, W. A. Martin 2.
36-17-16 Bruner, M. E. Johnson 1.
30-16-15 Grayson, Montgomery et al 9.
18-14-17 James, Peterson et al 6.
11-14-18 Callahan, Jolly-Ogg Oil 5.
2-14-19 Wade, C. M. Bradley 1.
20-13-16 London, Boomer Oil 1.
17-13-19 Lowther, Herbert Oil 1.
18-13-19 Smith, Howard & Murphy 1.
Rigs 6, Drlg. 41, Total 47.

POTTAWATOMIE COUNTY
No Rigs
Wells Drilling
26-11-4e Kline, Sikes, Kilgore & Shaffer 1.
22-10-4e Madgett, McCulloch Oil 1.
16-10-5e School land, Clark Edwards et al 1.
16-9n-5e School land, Gypsy Oil 1.
3-8n-4e Kenyon, Tidal Osage Oil 1.
16-8n-5e School land, I. T. I. Oil 1.
11-7n-4e Hathcock, Magnolia Pet. 1.
14-7n-4e Risenhoover, Magnolia Pet. 1.
15-7n-4e Standridge, Derby Oil 1.
Mull, Magnolia Pet. 1.
19-7n-4e Taley, Pierce Oil 1.
20-7n-5e Fyke, Magnolia Pet. 1.
10-6n-2e McGahey, Davis Detrick et al 1.
Shut Down
12-10-3e Ives, Sikes, Kilgore & Shaffer 1.
28-10-4e Toney, Central National Oil 1.
Drlg. 15, Total 15.

SEMINOLE COUNTY
Rigs
33-10-6e Epperson, Searight et al 3.
15-10-8e Bruner, Wilcox O. & G. 9.
1-9n-5e Ingram, Barnsdall Oil 1.
4-9n-6e Cluck, Wilcox O. & G. 1.
13-9n-6e Knapp, Carter Oil 3.
14-9n-6e Killing, Carter Oil 3.
Rentie, Mid Cont. Pet. 3, 4, 5, 6.
18-9n-6e Wisner, McCulloch Oil 1.
20-9n-6e Harjo, C. J. Wrightsman 1.
23-9n-6e Grisso, Carter Oil 6.
Killing, Carter Oil 2, 4.
Harjo, Tidal Oil 7, 8.
24-9n-6e James, Amerada Pet. 2.
Mahardy, Tidal Oil 5, 6.
26-9n-6e Jones, Independent-Inter Ocean 4.
Bowlegs, I. T. I. Oil 9.
7-9n-8e Cobb & Hill, Independent O. & G. 3.
McDaniel, Independent O. & G. 3.
Cobb, Independent O. & G. 1.
Jefferson, Independent & Amerada 1.
15-8n-6e Goforth, I. T. I. Oil 3.
32-8n-8e Long, Independent & Atlantic 5.
33-10-6e Kinkade, The Prairie O. & G. 5, 6.
21-8n-6e Harbison, The Prairie O. & G. 1.
Wells Drilling
33-10-6e Kinkade, The Prairie O. & G. 2, 4.
25-6n-6e Gross, Prairie O. & G. 1, 2, 3, 4, 5.
34-10-6e Washburn, The Prairie O. & G. 1, 2.
10-9n-6e Carter, The Prairie O. & G. 1.
13-9n-6e Spencer, The Prairie O. & G. 1.
27-9n-6e Stoother, The Prairie O. & G. 1.
33-11-8e Pierce, Continental Oil 4.
Pierce, Sinclair Oil 11.
26-10-6e Scott, Carter Oil 1.
28-10-6e Baker, Amerada Pet. 1.
33-10-6e Epperson, Searight et al 1, 2.
Youngblood, Searight et al 2, 4.
34-10-6e Stewart, Carter Oil 2, 3, 4.
Grayson, Mid Cont. Pet. 1, 2, 3.
35-10-6e Harjo, Carter Oil 1.
Harjo, Wrightsman Oil 1.
12-10-7e Micco, Gypsy & Prairie 1.
31-10-7e Noko, Carter Oil 1.
9-10-8e Hill, Sinclair Oil 2.
1-9n-5e Sango, F. J. Searight 1.
2-9n-5e Williams, Magnolia Pet. 1.
10-9n-5e Bruner, Independent O. & G. 2.
Leona, Magnolia Pet. 1.
Simpson, Magnolia Pet. 2.
Johnson, The Texas Company 1.
11-9n-5e Sparks, Magnolia Pet. 1.
14-9n-5e Winton, Barnsdall Oil 1.
3-9n-6e Frazier, Carter Oil 1.
4-9n-6e Davis, Carter Oil 1.
Cudjo, Gypsy Oil 1.
10-9n-6e Noble, Superior Oil 1.
13-9n-6e Knapp, Carter Oil 1, 2.
Carter, Sinclair Oil 1, 2.
14-9n-6e Killing, Carter Oil 1, 2.
Rentie, Mid Cont. Pet. 2.
15-9n-6e Johnson, Gypsy Oil 1.
Noble, Tidal Oil 1.
22-9n-6e Harjo, Kingwood Oil 1.
23-9n-6e Fixico Amerada Pet. 1, 2, 3, 4.
Killingsworth "A", Amerada Pet. 2.
Killingsworth "B", Amerada Pet. 1, 2.
Rentie, Amerada Pet. 1, 2, 3, 4.
F. Carter, Carter Oil 1, 2, 3, 4.
23-9n-6e Grisso, Carter Oil 1, 2, 3, 4, 5.
M. Killing, Carter Oil 1, 3.
P. Fixico, Independent O. & G. 1, 2.
Goodwin, I. T. I. Oil 1, 2, 3, 4.
Harjo, I. T. I. Oil 1, 2, 3, 4.
P. Fixico, Sinclair & Transcontinental Oil 1, 2.
Harjo, Tidal Oil 1, 2, 3, 4, 5, 6.
24-9n-6e Carter, Barnsdall Oil 1-A, 4, 5, 6, 7, 8.
Joe Carter, Carter Oil 1, 2, 3, 4.
B. Carter, Carter Oil 2.
Carter, Gypsy Oil 2, 3, 4, 6, 7, 8.
James, I. T. I. Oil 1, 6.
Reed, I. T. I. Oil 1, 8.
Tayoche, Mid Cont. Pet. 1, 3, 5, 6.
Mahardy, Tidal Oil 3, 4.
Joe Carter, Tidal Oil 1, 2, 3, 4.
25-9n-6e Gross, Empire G. & F. 1.
D. Harjo, Gypsy Oil 1, 2.
Franks, Magnolia Pet. 1.
Wilkins, Mid Kansas Oil 1.
Tayoche, Tidal Oil 1, 2.
26-9n-6e Fixico, Gypsy Oil 1, 2, 3, 4, 5, 6, 7, 8.
Wolfe, Gypsy Oil 1, 2, 3, 4.
T. Fixico Independent & Garland 5, 6, 7, 8.
L. Jones, Independent & Inter Ocean 1, 2, 3.
Bowlegs, I. T. I. Oil 1, 2, 4, 5, 6, 7, 8.
Strothers, Pue Oil 1, 3, 4, 5, 6, 7.
D. Fixico, Tidal Oil 1, 2, 3, 4, 5, 6, 7.
27-9n-6e T. Lukes, Carter Oil 1.
34-9n-6e Jones, Barnsdall Oil 1.
Wilson, Empire G. & F. 1.
Cudjo, Superior Oil 1.
Cudjo "A", Sinclair Oil 1.
Cudjo "B", Sinclair Oil 1.
35-9n-6e Franks, T. B. Slick 1.
36-9n-6e Frazee, Gypsy Oil 1.
15-9n-7e Jonah, Pure Oil 1.
17-9n-7e Warrior, Sinclair Oil 1.
18-9n-7e Drewry, Magnolia Pet. 1.
20-9n-7e Pepper, Magnolia Pet. 1.
21-9n-7e Island, Gypsy Oil & Phillips 1.
7-9n-8e Cully, Mid Cont. Pet. et al 2.
McDaniel, Plover Drlg. Co. 3, 4.
Alexander, T. B. Slick 2, 3.
8-9n-8e Ada, Plover Drlg. Co. 1.
18-9n-8e Peters, Southwestern Pet. 5.
5-8n-6e Seminole, Gypsy Oil 1.
13-8n-6e Harjo, I. T. I. Oil 1.
15-8n-6e Livingston, I. T. I. Oil 1.
17-8n-6e Strothers, Magnolia Pet. 1.
26-8n-6e Sewell, I. T. I. Oil 1.
33-8n-6e Brown, Gypsy Oil 1.
10-8n-7e Davis, Carter Oil 1.
22-8n-7e Younblood, Magnolia Pet. 1.
25-8n-7e Carter, Magnolia Pet. 1.
26-8n-7e Ramsey-Jackson, Magnolia Pet. 1.
28-8n-7e Knight, Magnolia Pet. 1.
27-8n-8e Carolina, Magnolia Pet. 1.
29-8n-8e Walker, Magnolia Pet. 3.
31-8n-8e Salinda, W. R. Ramsey 6, 7.
32-8n-8e Grayson, Amerada Pet. 2.
32-8n-8e Long "A", Dixie Oil 4.
E. Parker, Dixie Oil 3.
Long, Independent & Atlantic 4.
Jones, Magnolia Pet. 5.
E. Parker, Magnolia Pet. 3.
R. Jones, Shaffer O. & R. 8.
22-7n-6e Hotulka, Barnsdall Oil 1.
22-7n-7e Jackson, Magnolia Pet. 1.
S. Davis, Transcontinental Oil 2.
32-7n-7e Marshall, I. T. I. Oil 1.
6-7n 8e Harbor, Magnolia Pet. 2.
E. Davis, Magnolia Pet. 2.
30-7n-8e Street, Carter Oil & Atkinson 1.
5-6n-7e Vierson, Magnolia Pet. 1.
6-6n-8e Reed, Hoffer Oil 1.
Shut Down
11-10-8e King, Gypsy Oil 1.
35-9n-6e Cudjo, Turman Oil 1.
18-9n-8e Smith, Winona Oil 2.
14-8n-7e Rodman, Magnolia Pet. 1.
9-8n-8e Miller, T. Atkins et al 1.
32-8n-8e Grayson, Amerada Pet. 3, 4.
Long "B", Dixie Oil 2.
Long, Independent & Continental 4.
3-7n.8e Litka, Empire G. & F. 1.
8-7n-6e Litka, I. T. I. Oil 1.
6-7n-8e Carolina, Homaokla Oil 5.
33-6n-6e Charty, Palmetto Oil 1.
24-5n-5e Nitley, Riverside O. & R. & Kinney 1.
Rigs 31, Drlg. 236, Total 267.

HUGHES COUNTY
Rigs
30-9n-9e Anderson, T. B. Slick 1.
35-9n-9e Powell, Roxana Pet. 2.
21-9n-10 Buck, Furman & Newman 1.
5-8n-9e Tiger, Gypsy Oil 1.
14-7n-8e Jacobs, W. R. Ramsey 3.
Wells Drilling
1-8n-8e McAllister, The Prairie O. & G. 1.
13-9n-8e Paldon, Johnson Ashe et al 1.
1-9n-9e Bruner, Independent & Atlantic 4.
Cain, Minnehoma Oil 4.
26-9n-9e Davis, Independent O. & G. 4.
Harjo, Transcontinental Oil 6, 10.
35-9n-9e Powell, Roxana Pet. 1.
3-8n-9e Harjo, Champlin & Bass 1.
10-8n-9e Harnage, Sands Pet. 1.
13-8n-9e Long, Noble O. & G. 1.
28-8n-9e Reed, Independent & Margay 1.
Meadors, Magnolia Pet. 1.
17-8n-10 Cornelius, Dixie Oil 1.
Carter, Robinson & Amerada Pet. 1.
21-8n-10 Hamphill, Burk Greis Oil 1.
4-8n-11 Wallace, Sory & Swartz 1.
32-8n-11 Bear, Johnson & Ashe et al 1.
5-7n-8e Frederick, Amerada Pet. 10-A. 12.
Garner, Dixie Oil 9.
Frederick, Magnolia Pet. 2.
29-7n-8e Harjo, Magnolia Pet. 1.
2-6n-8e Hardage, Humble 1.
24-9n-8e Culver, T. Atkins et al 1.
WELLS SHUT DOWN
26-9n-9e Proctor "A", Independent & Darby Pet. 1.
27-9n-9e Long, Gypsy Oil 2.
29-8n-9e McCroy, Magnolia Pet. 1.
18-8n-10 Diamond "A", Dixie Oil 2.
Diamond "C", Dixie Oil 3.
5-7n 8e Garner, Dixie Oil 8.
Rigs 5, Drlg. 31, Total 36.

GRADY COUNTY
Rigs
31-10-8w Thompson, Hawkins & Young 1.
23-6n-8w Edmundson, Skelly Oil 5.
11-4n-8w Smith, Magnolia Pet. 3.
16-3n-5w Hicks, Amerada Pet. & W. H. Gant 1.
Burke, Marland Oil 2.
17-3n-5w Burke, Marland Oil 1.
21-3n-5w Kerans, Clark & Cowden 1.
27-3n- 5w Adair, Carter Oil 2.
Ramsey, Magnolia Pet. 1.
34-3n-5w Wham, Carter Oil 4.
35-3n-5w Lindsey, Carter Oil 4, 5.
Cross, Carter Oil 2.
Sohm, Carter Oil 2.
21-3n-5w Russell, The Prairie O. & G. 1.
Wells Drilling
21-8n-7w Webb, Watchorn Oil 1.
13-7n-5w Kemp, Bedner et al 1.
23-5n-8w McCoughtry, Stogner et al 8.
26-5n-8w Smith, Noble & Westerfelt 4.
27-5n-8w Chandler, Nicholos O. & D. 3.
15-5n-7w Null, Badgett & Hughes 1.
11-4n-8w Smith, Magnolia Pet. 2.
Rochill, Magnolia Pet. 3-A.
31-4n-5w Anderson, Magnolia Pet. 1.
5-3n-5w Dutton, Sinclair Oil et al 8.
6-3n-5w Dan Sledge, Amerada Pet. & W. H. Gant 1.

8-3n-5w Ridley, Carter Oil 1.
Horton, Carter Oil 1.
16-3n-5w Smith, Hamon & Cox 1.
17-3n-5w Woods, Carter Oil 1.
21-3n-5w E. Kerans, Carter Oil 1.
C. Kerans, Carter Oil 1.
Russell, Magnolia Pet. 1.
22-3n-5w Miller, Carter Oil 1.
27-3n-5w E. Polson, Carter Oil 3, 4.
Kilgore, Clarke & Cowden 2.
Adair, Critchlow et al 2.
E. Polson, Magnolia Pet. 2.
28-3n-5w Wilde, Joe Anderson 1-A.
C. Kerans, Magnolia Pet. 1.
34-3n-5w Nation, Briscoe & Hall 4.
Wham, Carter Oil 3.
Eva Nation, Carter Oil 1.
Nation, Garvin Drlg. Co. 1.
Mitchell, Magnolia Pet. 2, 3.
35-3n-5w Zachary, Carter Oil 1.
Cross, Carter Oil 1.
16-3n-5w Kayser, Gypsy Oil 1.
Shut Down
2-8n-8w Gray, John Scwartzfischer 1.
18-5n-8w Stewart, Peters, Williams & Harris 1.
35-5n-8w Dryden, J. B. Nicholos Oil 1.
26-4n-8w Ridley, Nicholos O. & D. Co. 1.
21-3n-5w Russell, Carter Oil 1.
Rigs 15, Drlg. 40, Total 55.

COMANCHE COUNTY
Rigs
24-2n-10w Cox, William Green 4.
Wells Drilling
2-4n-11w Haller, Garvin Drlg. Co. 2.
10-3n-10w Jennings, Magnolia Pet. 1.
20-2n-10w School, Ashcraft et al 1.
24-2n-10w Allen, Shaw & Rathke 1.
24-2n-10w Watson, Westheimer & Daube 2.
19-2n-9w Pritchel, Magnolia Pet. 1.
Guthrie, Westheimer & Daube 2.
29-1n-12w Bentley, Bentley et al 1.
Shut Down
35-4n-9w Warshime, Daisey Bell Oil 1.
10-2n-10w Spitler, Danciger Oil 1.
24-2n-10w Cox, William Green 3.
19-2n-9w ..... Cherry & Couch 1.
5-1n-10w Nelley, P. W. Appleby Jr. 1.
30-1s 13w Cox, Mid-Kansas Oil 1.
Rigs 1, Drlg. 14, Total 15.

STEPHENS AND COTTON COUNTIES
Rigs
1-2n-5w Gozo, Magnolia Pet. 1.
2-2n-5w Goza, Carter Oil 3.
Garvin-Sims, Carter Oil 9.
32-1n-5w Charleston, Carter Oil 1.
19-1s-8w Adams, Fossett et al 1.
28-1s-8w Taliaferro, McAllester et al 2.
30-1s-8w Skelly-Brigham, Beard & Cobb 3.
29-2s-7w Johnson, Homaokla Oil 1.
Wells Drilling
2-2n-5w Garvin-Sims, Carter Oil 8.
14-2n-5w Truitt, Rogers et al 2.
22-2n-4w Morris, F. Phillips & Barnsdall 1.
31-2n-4w Jefferson, Lewis, Clark Pet. & Montomery 1.
25-1n-9w Harris, Magnolia Pet. 11.
19-1n-8w Funk, C. E. Elzy 2.
30-1n-8w Hardin, Carter Oil 7.
2-1n 5w Kukes, Magnolia Pet. 1.
32-1n-5w Charleston, Magnolia Pet. 2.
32-1s-10w Fink, Garvin, Garvin & Urice 1-A.
36-1s-9w School, Walter Hunt 2.
17-1s-9w Furet, Magnolia Pet. 1.
25-1s-9w D. Russell, Magnolia Pet. 9.
18-1s-8w Johnson, John Farrett 1.
27-1s-8w Taliafero, Harry Hanbury 3.
Wilkinson, Pearce & Brown 6.
28-1s-8w Voss, Brown & McAllester 6.
32-1s-8w School No. 162, Magnolia Pet. 20.
Stevents, McMann Oil 11.
24-1s-8w Nigh, Ellis Drlg. Co. 1.
Kagay, Magnolia Pet. 7.
9-1s-5w Morris, Carter Oil 1.
12-1s-5w Doak, M. L. Amster 1.
26-1s-5w Shelby Skelly Oil 28.
2-1s-4w Goodwin, McBride et al 1.
4-2s-8w Burke, Turman Oil 1.
5-2s-8w Pielsticker, Skelly Oil 2.
29-2s-7w Wilson, Comanche O. & G. 1.
3-2s-5w Brown, Magnolia Pet. 4.
Harris, Magnolia Pet. 2, 3.
3-3s-5w Sutherland, Fidelity O. & G. 1.
Shut Down
19-2n-9w Waters, Homaokla Oil 1.
23-1n-9w Brown, Steve Linson 4.
19-1n-8w Funk, Ill-Okla Oil 1.
24-1s-9w Johnson, Magnolia Pet. 1.
28-1s-8w Voss, Guy Brown & McAllester 4.
Nelson, V. A. Kidney 2.
30-1s-8w Brown, Lone Star Ft. Ring 7.
12-2s-8w-Morrey, Pace et al 2.
21-2s-7w Enlee, Harper et al 1.
Rigs 8, Drlg. 41, Total 49.

JEFFERSON COUNTY
Rigs
33-6s-5w Seay, Gypsy Oil 35.
14-7s-6w Smith, J. R. McCoy 1.
Wells Drilling
5-4s-6w Hunton, Homaokla Oil 1.
28-6s-5w Seay, J. S. Armour 1.
33-6s-5w Seay, Gypsy Oil 34, 36.
26-7s-6w Spain, Gypsy Oil 1.
Shut Down
33-6s-5w Seay, Gypsy Oil 33.
34-6s-5w Seay, Sigler et al 1.
23-7s-7w Hayes, L. C. Hivick et al 1.
5-7s-5w Seay, Woodruff Brothers 1.
Rigs 2, Drlg. 9, Total 11.

PONTOTOC AND GARVIN COUNTIES
Rigs
17-4n-6e Witherspoon, American O. & G. Co. 1.
5-3n-4e Coon, Carter Oil 1.
Wells Drilling
28-5n-5e Hatcher, Tidal Oil 1.
Beeker, Humble O. & R. 1.
34-5n-6e Stringer, American O. & R. Co. 1.
12-3n-1e Vaughn, Magnolia Pet. 1.
18-3n-4e Wren, Carter Oil 1.
4-3n-6e Sneed, Ada Development 1.
14-1n-3w Newberry, S. P. Smith 7.
17-1n-3w Derdeyn, The Texas Co. 3-B.
31-1n-3w Bun, Magnolia Pet. 1.
Shut Down
25-5n-6e Patterson, Mallette & Kruger 1.
35-4n-6e Rayborn, Bowles et al 1.
25-3n-1w Paxton, Guy Fisher et al 1.
28-3n-4e Lloyd, O. F. Smith 1.
Rigs 2, Drlg. 13, Total 15.

CARTER COUNTY
Rigs
17-1s-3w Peck, Magnolia Pet. 1.
28-1s-3w Hale, Humble O. & R. 2.
32-1s-3w Bumpass, Magnolia Pet. 4.
34-1s-3w Newstadt, Magnolia Pet. 6.
3-2s-3w Liles, Gypsy Oil 4.
Richards, Humble O. & R. 2, 3.
Adams, Magnolia Pet. 5.
Carpenter, Magnolia Pet. 2.
Pruitt, Wirt Franklin & Prairie 11.
22-2s-3w Morris, Magnolia Pet. 2.
23-2s-3w J. Lohman, Magnolia Pet. 13.
15-2s-2w Ed & G. Cox, Magnolia Pet. 2.
16-2s-2w Hefner, Humble O. & R. 1.
3-3s-3w Gossett, Smith & Shell 1.
Wells Drilling
14-1s-3w Pollock, Magnolia Pet. 1.
18-1s-3w Jordan, Humble O. & R. 6.
19-1s-3w Hardin, Magnolia Pet. 5, 6.
W. Hardin, Magnolia Pet. 2.
31-1s-3w Moore, Magnolia Pet. 1.
22-1s-3w Morrison, Magnolia Pet. 1.
Lusk, Magnolia Pet. 7, 8.
Bumpass, Magnolia Pet. 1.
24-1s-3w Hernstadt, Gilmer Oil 4.
McClish, Gilmer Oil 3.
Fish, Magnolia Pet. 8.
Newstadt, Magnolia Pet. 5.
Ricketts, Magnolia Pet. 1.
2-2s-3w Calvery, Humble O. & R. 1.
Dolman, Magnolia Pet. 2.
3-2s-3w Liles, Gypsy Oil 3.
Reynolds, Humble O. & R. 1.
Adams, Magnolia Pet. 1, 2, 3, 4.
Reynolds, Mid Cont. Pet. 1.
Pruitt, Wirt Franklin & Prairie 7, 9, 10.
Smith, Skelly Oil 3, 4.
12-2s-3w Kennedy, Pure Oil 2.
27-2s-3w Fee, C. R. Smith 6.
22-2s-3w Morris, Magnolia Pet. 1.
Carpenter, Wirt Franklin 7.
23-2s-3w S. Lohman, Magnolia Pet. 5.
J. Lohman, Magnolia Pet. 12.
Williams, Magnolia Pet. 8.
Smith, Davis, C. R. Smith 1-A.
32-2s3w Johnson, Sturm Drlg. Co. 1.
6-2s-2w Higgins, Coline Oil 6.
7-2s-2w Higgins, Coline Oil 9.
Pierce, Coline Oil 9.
7-2s-2w Watkins, Iowa Oil 4.
Caughman, Roxana Pet. 4.
8-2s-2w Pierce, Carter Oil 3.
Pierce, Skelly Oil 1, 2.
10-2s2w Noble, Magnolia Pet. 1.
16-2s2w G. Cox, Magnolia Pet. 2.
May Cox, Magnolia Pet. 3.
Wilson, Magnolia Pet. 4.
2-5s-2w Bradford, Twin State Oil 1.
20-5s-1e Baptiste, Amerada Pet. 28.
Criner, Amerada Pet. 10.
Shut Down
19-1s-2w Morris, McGee 1.
3-2s-3w Reynolds, Mid Cont. Pet. 2.
22-2s-3w Carpenter, Magnolia Pet. 1.
Calvery, Wirt Franklin 1.
7-2s-2w Watkins, Iowa Oil 1.
Rigs 15, Drlg. 58 Total 73.

MISCELLANEOUS COUNTIES
Rigs
Harper County—
30-29-22w ..... D. T. Water 1.
Woodward County—
4-23-17w Nordyke, Diamond Drlg. Co. 1.
Logan County—
11-18-3w Matthews, Santrock Drlg. Co. 1.
Kingfisher County—
6-16-7w Campbell, Pet. Eng. Core Drlg. Co. 1.
23-15-5w Davison, Reiter-Foster 1.
Oklahoma County—
7-14-3w ..... J. V. Bailey 1.
17-14-2w Lynn, Von Stein & Hagerling 1.
13-13-1w Martin, E. A. Hawley & Rosser 1.
Texas County—
4-1n-13w Becker, Dutton & Hill 1.
Cleveland County—
15-7n-1w Vandeveer, Sooner Oil 1.
11-6n-1w Le Fevre, Magnolia Pet. 1.
Beckham County—
19-9n-23w Vanner, Standard Oil of Okla. 1.
25-8n-22w McGee, W. R. Duke 3.
Tillman County—
11-4s-18w ..... S. C. Canary & Barnsdall Oil 1.
Marshall County—
Arbuckle, United Eight Oil 3.
Caddo County—
33-7n-10w Riley, Josey Oil 1.
WELLS DRILLING AND SHUT DOWN
(Shut Down Wells indicated by *)
Harper County—
14-25-22w Cooper, Hoffer Oil 1.
Major County
36-22-14w Cheyenne Basin, The Texas Producers Oil 1*.
36-21-11w Gray, Frantz & Slick 1.
Ellis County—
9-21-25w ..... Oklahoma Northern Oil 1.
Woodward County—
25-21-21w Elmore, Sharon Oil 1.
34-26-26w ..... Small & Kennessey 1*.
Kingfisher County—
16-19-5w Kelley Max Kelly et al 1.
12-18-5w Robins, Marland Oil 1.
27-16-6w Sturgeon, McKenna & Crawford 1.
Logan County—
30-19-4w McCullough, Roxana Pet. 1.
33-19-4w ..... Bryan & Emery 1.
32-19-3w Rogers, Carter Oil 1.
28-18-4w Moore, Franklin Oil Assn. 1.
33-18-3w Quier, Haley & Pioneer Pet. 1*.
5-17-1w Baker, Zingerle & Bailey 1.
28-17-1e Berry, T. B. Slick 1.
28-16-1w Lair, Blackford O. & G. 1*.
24-15-3w Amsey, W. L. Ramsey 1.
Dewey County—
9-18-15w Perfect, Huckleby-McCoy 1.
Canadian County—
9-14-6w Piatt, A. D. Spears et al 1*.
29-11-7w Sanders, O. D. Jones 1*.
29-13-5w Fazoureck, T. B. Slick & Ben Franks 1*.
Oklahoma County—
9-14-1w Miller, Maxine Pet. 1.
10-12-3w Edwards, Cromwell O. & G. 1.
Cimarron County—
27-5n-5e St. Land, Ramsey Brothers 1.
2-2n-9e Smitz, Fenton, Brookins & Flowers 1*.
Texas County—
32-5n-12e Hovey, Valerius & Prairie 1.
21-4n-14 Hovey, Wilcox O. & G. 1.
18-3n-12e Zea, Valerius O. & G. 1.
28-3n-13e Zea, Wilcox O. & G. 1.
9-3n-15e Hullman, Reiter-Foster 1*.
10-2n-11e Kugle, Reiter-Foster 1.
23-2n-18e Graves, Connelly, Trammel & Danner 1*.
4-1n-12e Ellison No. 2, Haley Garber & Fulse 1.
5-1n-19e Tansey, Connelly, Trammel & Danner 1*.
Mayes County—
20-20-20 Longerier, M. C. Fore & F. R. Shepard 1.
8-20-19 Drew, J. L. Dixon 1.
McIntosh County—
10-12-14 Tiger, H. W. Lemon et al 1*.
35-12-15 Wolfe, Gilcrease Oil 1*.
12-12-16 Love, J. A. Sheppard et al 3.
Sequoyah County—
32-11-25e Ralph, Sequoyah Gas Co. 1.
15-11-26e Shablin, Citizens Gas Co. 1.
Pittsburg County—
32-9n-16e Smith, J. L. Pattison 1.
Haskell County—
10-9n-18e Sanders, Marion Oil 1*.
Beckham County—
22-9n-23w Hawkins, Magnolia Pet. 1.
36-8n-22w Devers & Cheney, W. R. Duke 1*.
Kiowa County—
5-6n-18w Bonham, A. C. Varner 1*.
6-2s-16w ..... Landfair 1.
Caddo County—
23-6n-10w Jacobs, English Drlg. Co. 1.
31-6n-9w Starkweather, English Drlg. Co. 1.
29-6n-12w Galbreath, W. J. Hartley 1.
23-5n-11w ..... Abernathy et al 1.
2-5n-9w Marchand, Gorton Trust Co. 1.
10-5n-9w Alexander, W. H. Livermore et al 1.
11-5n-9w Lacky, Briscoe & Hall 2*, 3*.
Lacky, Magnolia Pet. 4.
12-5n-9w Royce, Diamond Core Drlg. Co. 2.
Rigney, Flora Okla. Oil 1.
Tillman County—
13-1s-18w Snelling, Oasis Oil 1*.
McClain County—
19-6n-4w Airington, Becker-Reed 1.
Murray County—
4-2s-3e Olson, Humble O. & R. 1.
Johnson County—
26-4s-5e Chastain, Deese et al 1*.
Marshall County—
17-5s-5e Sacra, Kennedy Drlg. Co. 1*.
17-5s-6e Walters, Magnolia Pet. 1.
Love County—
10-6s-3w Laten, R. M. Boring et al 1.
7-6s-2e Brown, Magnolia Pet. 1.
25-6s-2e Dillard, Schermerhorn .
28-6s-2e Fee, Westheimer 1.
Nowata County—
24-25-14 Kirk, The Prairie O. & Gas 12.
Rigs 16, Drlg. 70, Total 86.

KANSAS FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Anderson	20	1,309	1	0
Butler	12	1,170	2	0
Cowley	11	1,579	2	0
Chautauqua and Elk	8	155	5	0
Greenwood	63	5,295	15	0
Lyon	8	335	4	0
Miami	10	34	6	0
Sumner	9	4,309	3	0
Miscellaneous	33	686	15	5
Total October	174	14,872	54	5
Total September	125	11,212	48	3
Difference	49	3,660	6	2

Summary of Rigs and Wells Drilling

County—	Rigs	Drg.	Ttl.
Butler	6	44	50
Chautauqua and Elk	3	16	19
Cowley	6	33	39
Greenwood	40	63	103
Kingman	1	10	11
Lyon	5	7	12
Marion	3	10	13
Montgomery	0	12	12
Rice	1	9	10
Russell	0	9	9
Sumner	1	19	20
Woodson	2	11	13
Miscellaneous	11	70	81
Total Octo'er	79	313	392
Total September	62	326	388
Difference	17	13	4

WELLS COMPLETED
ANDERSON COUNTY

28-22-19	Albright, W. S. Fees 18	20
	Albright, W. S. Fees 19	dry
13-21-20	Ewing, Peerless Oil of Kans. 11	50
18-21-21	Crozier, Peerless Oil of Kans. 10	100
19-21-21	Mulkey, Brady & Morrison 22	20
13-21-20	Ewing, Peerless Oil of Kans. 12	60
33-20-21	Kretchmer, Kewanee O. & G. 16	70
	Kretchmer, Kewanee O. & G. 8	12
	Kretchmer, Kewanee O. & G. 9	12
	Kretchmer, Kewanee O. & G. 17	70
	Cleveland, Kewanee O. & G. 11	120
13-21-20	Ewing, Peerless Oil 13	75
	Ewing, Peerless Oil 14	100
18-21-21	Crozier, Peerless Oil 11	100
14-21-20	Farlow, Brady-Morrison 10	80
13-21-20	Ewing, Peerless Oil 15	100
	Ewing, Peerless Oil 16	100
33-20-21	Cleveland, Kewanee O. & G. 13	60
	Kretchmer, Kewanee O. & G. 18	40
	Cleveland, Kewanee O. & G. 12	120
	Wells completed	20
	Production	1309
	Dry	1

BUTLER COUNTY

17-26-5e	Koogler, Empire G. & F. 72	275
35-27-4e	Starkey, Empire G. & F. 116	75
25-27-7e	La Port, Sheldon, Connell et al 1	dry
12-27-7e	Worrell, Empire G. & F. 2	200
3-28-6e	Blakeman, Johnson et al 7	400
22-27-7e	Harris, Mid-Kansas Oil 3	40
28-29-6e	Steinhoff, Gled Oil 2	25
16-27-6e	Reynolds, Phillips Pet. 2	dry
26-26-5e	Sluss "A", Liberty O. & G. 1	30
20-26-7e	Ow, Golden et al 1	dry
35-27-4e	Starkey, Empire G. & F. 12	110
20-27-6e	Clark, Hoyt et al 6	15
	Wells completed	12
	Production	1170
	Dry	3

COWLEY COUNTY

19-32-3e	Waite, Carter Oil 10	275
15-32-4e	Wallace, J. A. Hull 2	dry
	Graham, Marland Oil 1	450
31-30-6e	Robbins, Lewis Oil 10	50
21-31-4e	Goodrich, Twin State Oil 1	175
20-31-5e	Sinclay, Roth & Faurot 1	dry
13-32-4e	Bishop, Gypsy Oil 1	80
15-32-4e	School Land, J. A. Hull 2	100
	Wallace, J. A. Hull 1	250
	School Land, Marland Oil 1	98
	Robieson, Trees Oil et al 1	100
	Wells completed	11
	Production	1579
	Dry	2

CHAUTAUQUA AND ELK COUNTIES

7-32-11	Chaffine, Mitchell, Frazier et al 1	dry
14-31-10	Chaffine, Pure Oil 11	80
27-31-10	Marshall, Theta Oil 1	dry
5-31-11	Nelson, Miller et al 1	dry
33-34-9e	Bylee, The Prairie O. & G. 1	dry
8-34-11	Denman, The Prairie O. & G. 7	40
30-30-10	Nicholson, Landon et al 1	dry
34-31-10	Walker, Landon et al 1	35
	Wells completed	8
	Production	155
	Dry	5

GREENWOOD COUNTY

11-22-11	Kipfer, Empire G. & F. 15	200
14-22-11	Duby, Empire G. & F. 7	30
32-22-11	O'Neil, York State Oil 14	10
4-22-11	Fankhouser "B", Simmons et al 4	150
29-23-10	Thrall, Empire G. & F. 5.	40
15-23-13	Schneider, Shaffer & Howell 14	50
29-23-13	Dehlinger "B", Mid-Continent Pet. 12	20
23-24-9e	Moore "B", Mission Oil 1	30
26-24-8e	Halverson, Polhamus et al 3.	30
25-24-10	Nixon, Phillips Pet. 2	150
	Nixon, Phillips Pet. 3	200
	Nixon, Phillips Pet. 4	75
36-24-10	Mock, McGinnis et al 1	300
15-23-10	Burgess, Roth, Faurot & Phillips 2	dry
35-24-10	Edwards, Manhattan Oil 1	dry
23-25-8e	Jackson, Independent O. & G. 1	dry
11-22-10	Green, Phillips Pet. 3	150
	Green, Phillips, Ritchey & Moore 2	75
14-22-11	Fromme, Empire G. & F. 13	100
15-22-11	Bartlett, Empire G. & F. 7	30
19-23-9e	Morris, Empire G. & F. 6	50
8-23-11	Oliver, Pure Oil 6	40
18-23-11	Fogle, The Texas Company 2.	50
17-23-11	McGilvrey, The Texas Company 1	250
15-23-13	Shadel, Tidal Oil 10	60
2-24-10	Dales, Vickers Pet. 1	dry
30-24-11	Wiggins "E", McGinnis et al 2	200
33-25-10	Hammond, Farr et al 1	dry
23-25-11	Hall, Skelly Oil 1	dry
6-22-10	Atyeo, Empire G. & F. 12	20
15-23-9e	Green, Skelly Oil 4	160
31-24-11	Rockhill, Theta Oil 1	225
4-22-12	Fankhouser, The Texas Company 3	dry
17-24-11	Jacoby, Manhattan Oil 1	dry
7-24-11	Gaffney, The Prairie O. & G. 2	275
2-22-10	Sheppard, Manhattan Oil 2	150
	Bradfield, Syndicate Oil 3	125
	Bradfield, Syndicate Oil 4	125
12-22-10	De Malorie, Davis, Haslett et al 23	100
27-22-11	Wick, Skelly Oil 16	300
4-22-12	Fankhouser, Empire G. & F. 8	60
9-23-11	Tiffany, Simmons et al & Amerada Pet. 6	60
9-23-13	Inthrum, Haverhill Pet. 13	40
6-24-11	Freeman, Kanson Oil 3	50
8-24-11	Smith, Polhamus & Smith 1.	dry
18-24-11	Gaffney, Manhattan Oil 1	100
20-22-10	Browning, Sinclair O. & G. 41	dry
	Browning, Sinclair O. & G. 47.	85
	Browning, Sinclair O. & G. 48.	120
7-22-11	De Malorie, Davis, Haslett et al 9	150
10-22-11	Yearout, White Eagle Oil 1	dry
4-22-11	Fankhouser "B", Simmons et al 11	150
9-22-12	Swanson, Simmons et al 8	150
22-22-13	Wagler, Braden Brothers & Derby 1	20
29-22-13	Luthi, Simmons et al 1	250
22-23-9e	Teter, Davis, Haslett et al 3	dry
17-23-11	McGilvrey, Darby et al 4	250
10-23-13	Schneider, Theta Oil 24	15
27-23-13	Schindler, Empire G. & F. 1.	10
28-23-13	Dehlinger "A", Mid-Cont. Pet. 8	15
	Dehlinger "A", Mid-Cont. Pet. 9	dry
16-24-10	Mathews, Flack et al 1	dry
20-24-11	Dugan, Robertson & Dugan 1.	dry
	Wells completed	63
	Production	5295
	Dry	15

LYON COUNTY

30-21-10	Atyeo, Transcontinental Oil 6.	100
31-21-10	Atyeo, Sheedy et al 14	50
19-21-11	Rosillion, Emerald Oil 1	dry
30-21-10	Jones, Theta Oil 4	100
36-21-12	McCollough, Gasche & Amerada Pet. 1	dry
30-21-10	Jones, Theta Oil 5	85
25-20-12	Stratton, Gasche & Balliere 1.	dry
33-21-13	Clemmer, Terrian, Balliere et al 1	dry
	Wells completed	5
	Production	335
	Dry	4

MIAMI COUNTY

11-17-24	Parks, Endicott & Daneriine 1	dry
12-17-24	Barricklow, Weiser & Stark 9	10
11-17-24	Wilson, Weiser & Stark 2	dry
2-19-21	Cerubs, L. H. Wentz 1	dry
17-17-24	Wilson, Weiser & Stark 2	dry
11-17-24	Parks, Endicott & Daneriine 1	dry
12-17-24	Barricklow, Weiser & Stark 11	6
	Barricklow, Weiser & Stark 10	dry
36-17-21	McKann, J. F. McIntire 35	15
	McKern, J. F. McIntire et al 36	3
	Wells completed	10
	Production	34
	Dry	6

SUMNER COUNTY

23-33-2e	Holt, Sinclair Oil 2	200
15-30-2w	Hunt, Meridian O. & G. 1	dry
25-31-2e	Mason, Roxana Pet. 1	1100
	Rutter, Roxana Pet. 1	1400
	Van Sickle, Roxana Pet. 1	775
17-32-2e	Owens, Roxana Pet. 1	134
	Hartzell, Twin State Oil 1	100
9-33-2e	Wright, Marland Oil 1	dry
13-35-2w	Gilbreth, Broadhurst et al 1	dry
	Wells completed	9
	Production	4309
	Dry	3

MISCELLANEOUS COUNTIES
Chase County—

19-18-7e	Lipps, Empire G. & F. 4	dry
3-18-9e	White, Watchorn O. & G. 1	dry
1-21-9e	Richards, Manhattan & Phillips 1	dry

Coffey County—
29-22-14 Kaufman, Ark. Fuel Oil 1... dry
8-22-14 Miller, Derby Oil 1..... dry
Bourbon County—
15-24-21 Sidel, Koogler, Kyler & McCormack 2 25
Marion County—
17-21-4e Waner, National Ref. Co. 4.. 340
31-21-5e Osgood, Holl et al 1..... dry
1-22-3e Colbeck, Cameron Brothers 1. dry
Montgomery County—
26-34-14 Meyers, Western Gas 1..... gas
31-31-17 Bloss, McLorinan Oil 14..... gas
Kingman County—
9-27-6w Hemple, Phillips Pet. 1..... dry
Labette County—
34-32-17 McGuire, Ward Perry et al 5. 4
Rice County—
35-20-6w Harder, Phillips Pet. 1..... 200
Allen County—
16-26-20 Hibbs, A. A. Ackerman 19.... 8
34-25-21 Perry, J. F. Pavlicek 12..... dry
McPherson County—
3-18-2w Anderson, Fowler et al 1..... dry
Morris County—
5-17-7e Carey, Nicoll et al 1..... gas
6-17-7e Magui, Nicoll et al 1..... gas
Sedgwick County—
17-29-1e Howell, Carr, Hartman & Skaer 1 ..... dry
Woodson County—
24-26-14 Stephenson, Shiltz et al 1.... dry
Franklin County—
17-18-21 Carter, L. H. Wentz 9..... 1
Needham, G. H. Wentz 13.... 2
18-18-22 Carter, L. H. Wentz 1..... 6
29-16-21 Gimgrich, W. C. Hayhurst 14. 5
Gimgrich, W. C. Hayhurst 15. 10
Neosho County—
26-27-17 Choppie, John Schell 14..... 3
15-28-18 Bell, Moore & Helmick 4..... dry
Flottman, Wells & Breyfogle 1 dry
Bell, Moore-Helmick 5..... 3
31-28-20 Dounsel Brothers, Penn. Kans. O. & G. 1..... gas
4-28-19 Johnson, H. H. McCall 4..... 40
Johnson, H. H. McCall 5..... 40

Wells completed 33
Production 686
Dry 15
Gas 5
Gas production 1,400,000

BUTLER COUNTY
Rigs
28-25-4e Pierce, Allison & Fitzwilliams 1.
30-26-6e McClure, Washalaugh, Foraker et al 1.
1-27-7e Lucas, White Eagle et al 1.
11-28-4e Wallace, Empire G. & F. 18.
13-28-7e French, Davidson et al 1.
27-29-5e Troutman, Shawver et al 1.
Wells Drilling
28-23-8e Watkins, Kismet & Amerada Pet. 1.
2-25-3e Drake, Vickers Pet. 1.
13-25-4e Childers, Ingold et al 1.
1-25-5e Murphy, Connell et al 1.
11-26-2e McArbin, Boyle et al 1.
20-26-3e Hearman, Barnsdall Oil 1.
23-26-3e Brown, Gypsy Oil 1.
24-26-4e Richardson, Dickinson et al 1.
17-26-5e Koogler, Empire G. & F. 73.
24-26-5e Holland, Lassen et al 1.
23-26-7e Blankinship, Empire G. & F. 4.
21-26-8e Dickinson, Tidal Oil 36.
31-26-8e Nichols, Rodgers et al 1.
4-27-6e Schaffer, Rosenthall, Lassen et al 1.
17-27-6e Oldbury, Hoyt et al 1.
12-27-7e Worrell, Empire G. & F. 3.
Cora, Phillips Pet. 1.
Cora, Phillips Pet. 2.
Seward, White Eagle et al 4, 5.
13-27-7e Phillips-Seward, Phillips Pet. 3.
14-27-7e Harris, Sinclair Oil 1.
23-27-7e Harris, Mid-Kansas Oil 3.
10-28-4e Moyle, Empire G. & F. 43.
28-28-4e Love, Empire G. & F. 32.
3-28-6e Kramer, Allison & Fitzwilliams 4.
Blakeman, Johnson et al 6.
Blakeman, Mid-Kansas Oil 2.
4-28-6e Blakeman, Magnolia Pet. 1.
20-28-6e Fettet, Magnolia Pet. 4.
30-28-7e Jones, Herron et al 1.
28-29-8e Buhl Roth & Co. 1.
35-29-6e Little "A", The Prairie O. & G. 1.
Wells Shut Down
33-26-3e Mulch, Neeley O. & G. 1.
11-26-4e Dempsey, Van Welch et al 1.
18-26-6e Jones, Manhattan et al 1.
14-28-3e Shoewalter, Irwin et al 1.
7-28-5e Layton, Kismet & Sanford 1.
3-28-6e Blakeman, Johnson et al 3.
17-28-6e Pettet, Phillips Pet. 2.
7-29-4e Holcomb, Producers Pet. 1.
19-29-4e Owens, Hartman & Skaer 1.
21-29-4e Holcomb, E. Wilcox et al 1.
12-29-6e Keneyon, Tobin et al 1.
Rigs, 6; wells drilling, 44; total, 50.

CHAUTAUQUA AND ELK COUNTIES
Rigs
22-31-10 Dawson, Cosden et al 1.
20-31-11 La Ville, Gillespie 1.
3-32-10 Walker, The Prairie O. & G. 1.
Wells Drilling
12-30-9e Donnall, Seeley et al 3.
14-31-10 Chaffine, Pure Oil 12.
5-32-9e Cain, The Prairie O. & G. 1.
Webb, Union Gas Corp. 16.
8-34-11 Ewers Fee, The Prairie O. & G. 8.
Wells Shut Down
11-32-10 Jeanerette, Griffith-Strueb Oil 1.
31-32-10 McNown, Foster, Harsp & Craven 2.
4-29-9e Britton, McCollough & Tolbot 1.
23-29-10 Cringer, Watchorn O. & G. 1.
36-29-10 Gribbons, Benge et al 1.
13-30-8e Burge, Ohio Fuel Oil 2.
3-31-8e Denton, Minnehoma Oil 1.
13-31-10 Webb, Pure Oil 16.
14-31-10 Webb, Union Gas Corp. 17, 18.
30-31-11 Gruban, Denman Brothers et al 1.
Rigs, 3; wells drilling, 16; total, 19.

COWLEY COUNTY
Rigs
21-31-4e Ross, Twin State Oil 1.
33-31-4e Goodrich, Brinn et al 1.
15-32-4e Graham, Marland Oil 3.
7-32-8e Crosby, Ark. Fuel Oil 5.
8-33-3e Thurlow, Barnsdall Oil 1.
8-31-6e Scott, The Prairie O. & G. 1.
Wells Drilling
28-30-3e Sloan, Roxana Pet. 1.
11-30-4e Weidner, Shawver & Sutter 2.
10-31-3e Shaffer, Benedum & Trees 6.
35-31-3e Wilson, Ark. Fuel Oil 1.
28-31-4e Lewis, Trees Oil 4.
17-31-6e Harris, Tidal Oil 1.
16-31-7e Clover, Cosden et al 1.
19-32-3e Waite, Carter Oil 11.
20-32-3e Carson, T. B. Slick 1, 2.
12-32-4e Brant, Ark. Fuel Oil 1.
13-32-4e Rockwell, Marland Oil 5.
15-32-4e School Land, J. A. Hull 3, 4.
Swenson, Independent O. & G. et al 1.
Graham, Marland Oil 2.
Wallace, Skelly & Tidal 1.
22-32-4e Dribbens, T. B. Slick et al 1.
24-32-4e Lewis, J. A. Hull 4.
6-33-3e Swope, T. B. Slick 1.
19-33-3e Holman, Brady Brothers et al 1.
Heskett, Slick & Marland 3.
7-33-7e Riding, Brown Brothers 1.
18-33-7e Smith, Doric Oil Co. 1.
4-34-3e Beeks, Gypsy Oil 1.
20-34-3e Surtz, Wilt & Shawver 1.
21-34-3e Janes, Roxana Pet. 1.
31-34-3e Mullett, Marland Oil 1.
24-34-6e Day, S. H. E. Pet. 2.
Wells Shut Down
7-30-6e White, Branson et al 1.
4-31-5e Elliott, Boxer et al 1.
31-31-6e Druery, Patton et al 2.
17-34-3e Baker, Shawver et al 1.
Rigs, 6; wells drilling, 33; total, 39.

GREENWOOD COUNTY
Rigs
2-22-10 Bradfield, Syndicate Oil 5.
7-22-10 Pixlee, Ritchey & Moore 1.
19-22-10 Browning, Sinclair Oil 50.
20-22-10 Browning, Sinclair Oil 30.
14-22-10 Duby, Empire G. & F. 8.
18-22-11 Clopton, Simmons et al 4, 5, 6.
9-22-12 Swanson, The Texas Company 1.
15-22-12 Boles, Bailliere et al 1.
9-22-13 Todd, Skelly Oil 1.
15-22-13 Clark, Nolan et al 1.
13-23-10 Platt, Fisher, Lauck et al 1.
6-23-11 Seeley, Fisher, Lauck et al 1.
7-23-11 Edwards, Fisher, Lauck et al 1
Edwards, Marland Oil 2.
Edwards, Phillips Pet. 4.
16-23-11 Fogle, The Texas Company 3, 4, 5.
Edwards "B", The Texas Company & Simmons 2.
36-23-11 Patterson, York State Oil 1.
12-23-12 Wengler, Wilson et al 1.
29-23-12 Patterson, Parrish et al 1.
3-24-8e Mosby, Syndicate Oil 1.
25-24-10 Nixon, Phillips Pet. 5.
36-24-10 Mock, McGinnis et al 3, 4.
18-24-11 Dugan, Empire G. & F. 1.
19-24-11 Freeman, Galbreth, Polhamus et al 1.
Freeman, Manhattan & Phillips 5.
30-24-11 Wiggins "A", McGinnis et al 7.
31-24-11 Rockhill, Theta Oil 2, 3.
12-25-8e Welch "B", Roth & Faurot 1.
17-25-10 Hammond, Abel, Finney et al 1.
22-25-10 Dibert, Hayden & McCollough 1.
34-25-10 Town lot, Polhamus et al 1.
33-26-13 Ludlum, Valley-Osage Oil 1.
29-23-12 Gilbert, The Prairie O. & G. 1.
Wells Drilling
32-23-13 Newman, The Prairie O. & G. 1.
17-22-10 Browning, Theta Oil 17.
11-22-11 Kipfer, Empire G. & F. 16.
14-22-11 Fromme, Empire G. & F. 14.
18-22-11 Clopton, Mid-Cont. Pet. 12.
22-22-11 Garth, Empire G. & F. 2.
27-22-11 Welch, Skelly Oil 17.
32-22-11 De Malorie "B", York State Oil 16.
4-22-12 Fankhouser, Mid-Cont. Pet. 2.
9-22-12 Swanson, Simmons et al 6.
28.22-13 Barnard, Callahan, Ainsworth et al 1.
10-23-9e Noler, Skelly Oil 5.
14-23-9e Green, Murphy et al 2.
15-23-9e Teter, Skelly Oil 8.
Green, Skelly Oil 6.
10-23-10 Smith, Roth, Faurot & Phillips 2.
30-23-10 Martindale, Manhattan Oil et al 1.
32-23-10 Thrall, Manhattan Oil et al 58.
36-23-10 Faster, Schwartz et al 1.
7-23-11 Edwards, Marland Oil 1.
13-23-11 Baker, Fee Pet. et al 1.
16-23-11 Edwards, Manhattan & Phillips 2.
Edwards "B", The Texas & Simmons 1.
Edwards "E", The Texas & Simmons 1.
17-23-11 Kipfer, Jennings Brothers 1.
McGinley, The Texas Company 2.
25-23-11 Ellis, Simmons & Amerada 4.
4-23-13 Inthrum, Callahan & Ainsworth 1.
27-23-13 Schindler "A", Mission Oil 8.
30-23-11 Evans, Chambers & Spencer 1.
34-23-13 Redikin, Katoma Oil 1.
25-24-10 Nixon, Skelly Oil 1.
36-24-10 Mock, McGinnis et al 2.
3-24-11 Short, A' et al 1.
18-24-11 Gaffney, Manhattan Oil 2.
30-24-11 Wiggins "B", McGinnis et al 11.
12-25-8e Birkett, Roth & Faurot 10.
24-25-8e Hoffman, Mid-Kansas 1.
25-25-9e Singleton, Derby Oil 1.
30-25-9e Hoffman, Mid-Kansas Oil 9.
Ladd, Mid-Kansas Oil 9.
27-25-10 McCarthy, Basom et al 1.
31-25-11 Shell, Osage Oil 1.
17-25-12 Green, Connell et al 1.
6-25-13 Steckle, Bisagno et al 1.
2-26-8e Hull, Tidal Oil 29.
21-26-9e Lowery, Smith et al 1.
24-26-9e Weirshing, Beacon Oil 6.
7-27-10 Weaver, Griffeth et al 1.
Wells Shut Down
18-22-10 Browning, Rhodes et al 7.
23-22-11 Brown, Callahan et al 1.
26-22-12 Schwab, Empire G. & F. 1.
9-22-13 Todd, Enterprise Dev. Co. 1.
16-23-9e Teter, Empire G. & F. 35.
1-23-10 Bell, Leonard Pet. 1.
23-24-10 Edwards, Edwards et al 1.
14-25-11 Cox, P. G. & R. 1.
25-26-9e Saurwine, Kurtz et al 1.
12-27-9e O'Byrine, Mountain Oil 1.
25-27-10 Hanson, Marshall et al 1.
33-27-11 Benest, Winona Oil 1.
2-28-11 Schultz, McCollough et al 1.
Rigs, 40; wells drilling, 63; total, 103.

KINGMAN COUNTY
Rigs
20-27-7w Woolsey, Pyle et al 1.
Wells Drilling
16-27-7w Richardson, Carter Oil 3.
31-28-5w Beshare, Crawford & McKenna 1.
11-28-6w Pagett, Marland Oil 1.
35-28-7w Yoeman, Cassoday Oil 1.
16-28-8w McKenna, Phillips Pet. 1.
21-29-9w Schultz, Phillips Pet. 1.
35-30-9w Keiming, Vickers & Stearns 1.
Wells Shut Down
22-28-5w Linholm, Harwood & Winters 1.
13-28-7w Greenleaf, Fleeger et al 1.
4-30-6w Richardson, Ozark Drlg. Co. 1.
Rigs, 1; wells drilling, 10; total, 11.

LYON COUNTY
Rigs
21-21-10 Patterson, Staats et al 1.
24-21-10 Rosillion, Super Six Oil 4.
25-21-10 Bradfield, Mackson & Wise 1.
Bradfield, McCollough et al 2.
Wells Drilling
25-21-10 Bradfield, McCollough et al 1.
Bradfield, Ritchey & Moore 1.
30-21-10 Atyeo, Transcontinental Oil 10.
31-21-10 Atyeo, Transcontinental Oil 11.
Wells Shut Down
25-19-10 Bibermyer, Culp et al 1.
24-21-10 Rosillion, Super Six Oil 3.
31-21-10 Atyeo "A", Transcontinental Oil 8.
Rigs, 5; wells drilling 7; total 12.

MARION COUNTY
Rigs
8-19-4e Sklemar, Wilcox O. & G. 1.
20-19-4e Propp, Propp et al 1.
23-22-4e Ebristodt, Watchorn O. & G. 2.
Wells Drilling
8-17-3e Damon, Ark. Fuel Oil Co. 1.
22-17-4e Haznicek, Frank et al 1.
8-18-4e Novac, Schock et al 1.
32-18-4e Propp, Nicoll et al 1.
34-18-4e Utting Empire G. & F. 1.
6-19-4e Propp, Youker, Propp et al 2.
19-21-5e Greeley, Connell Oil 2.
8-22-5e Fooley, Burford & Brimm 1.
Wells Shut Down
28-20-4e Stafford, Buck et al 1.
32-31-4e Equity, Morgan et al 1.
Rigs, 3,; wells drilling, 10, total, 13.

MONTGOMERY COUNTY
No rigs
Wells Shut Down
21-31-14 Faler, Ramler et al 1.
21-32-13 Neiman, Dunn et al 1.
36-32-14 Dryhead, Irish et al 1.
5-32-16 Brinkman, Cowell et al 1.
35-32-16 Wyberger, Bloom et al 1.
29-32-17 Hellum, Earl & Overlease 1.
35-33-16 Felt, Voice & Tabor 1.
4-33-17 Hall, Townsend et al 1.
30-33-17 Bunk, Brown & Wolf 1.
28-34-14 Owens, Phillips Pet. 1.
12-35-16 Wilson, Tex-O-Kan Oil 1.
4-35-17 Walker, Gallowye & Roberts 1.
Wells drilling, 12; total 12.

RICE COUNTY
Rigs
2-19-10 Hollscher, Sparta Drlg. Co. 1.
Wells Drilling
34-20-6w Libby, The Prairie O. & G. 2.
2-21-6w Walstein, The Prairie O. & G. 1, 3.
35-20-6w Welch, The Prairie O. & G. 3.
1-19-7w Deed, Pryor & Lockhart 1.
26-20-6w Johansen, Midland Oil 1.
3-21-6w Walstein, Miller-Walstein Synd. 3.
22-21-6w Swanson, Youker et al 1.
Wells Shut Down
21-20-6w Barnes, Stamey et al 1.
Rigs, 1; wells drilling, 9; total, 10.

RUSSELL COUNTY
No rigs
Wells Drilling
32-11-15w Dodge, Derby Oil et al 5.
14-12-13w Wilson, Wilcox O. & G. 1.
17-12-15w Munsell, Valerius O. & G. 3.
30-12-15w Austin, Mid-West Ref. 4.
20-13-15w Sloan, Keys Pet. 1.
6-14-12w Linsay, Kettle & Shoemaker 1.
Kistler, Kettle & Shoemaker 1.
5-14-15w Dortland, Mid-West Ref. 36.
Wells Shut Down
13-11-13w Pospishal, Krueger et al 1.
Wells drilling, 9; total, 9.

SUMNER COUNTY
Rigs
3-31-2e Griffeth, Gypsy Oil 1.
Wells Drilling
34-34-2e Olson, The Prairie O. & G. 2.
36-30-2w Riner, Cosden O. & G. 1.
19-30-4w Kelly, Champlin O. & R. 1.
22-31-2e Clodfelter, Roxana Pet. 1.
25-31-2e Churchill, Roxana Pet. 2, 3.
Van Sickle, Roxana Pet. 2.
Herrick, Wentz Oil 1.
25-32-1e Firth, Ind. Ref. et al 1.
3-32-2e Reese, Magnolia Pet. 1.
8-32-2e Reese, Marland Oil 1.
17-32-2e Morris, I. T. I. Oil 1.
24-33-2e Holt, Carter Oil 1.
Holt, Sinclair Oil 3.
22-33-2e McDaniels, National Union Oil 1.
23.34-2w Douglas, Gypsy Oil 1.
18-35-1e Hamilton, Amerada Pet. 1.
Wells Shut Down
35-31-4w Stewart, Sparta Drlg. Co. 1.
3-32-2e Rice, Stallings et al 1.
Rigs, 1; wells drilling, 18; total, 20.

WOODSON COUNTY
Rigs
9-25-14 Stephenson, Shields & Cross 2.
23-26-14 Lauber, Peerless O. & R. 4.
Wells Drilling
29-23-14 Maclaskey, The Prairie O. & G. 11.
17-25-14 Welde, Fields & Cross 1.
13-26-14 Daniels, Burford & Brimm 1.
23-26-14 Duncan, Peerless O. & R. 1, 3.
26-26-14 Gregory, McMullen et al 1.
27-26-14 Henley, Peerless O. & R. 1.
Wells Shut Down
35-25-13 Johnson, Altomite O. & G. 1.
13.25-14 Hunt, Alters et al 1.
23-26-14 Lauber, McCollough et al 1, 2.
Rigs, 2; wells drilling, 11; total, 13.

MISCELLANEOUS COUNTIES
Figs
Chase County—
27-18-7e Lipps, Preston & Pasewalk 3.
25-21-9e Lewis, Sinclair Oil et al 1.
36-22-7e Frew, Taylor et al 1.
Dickinson County—
7-16-1e Eliason, Dewel et al 1.
Morris County—
32-14-7e Barber, Kline et al 1.
5-14-8e Blank, Alta Vista O. & G. 1.
Pottawatomie County—
17- 9-12 Stewart, Crawford et al 1.
31- 9-12 Bratcher, Crawford et al 1.
Sedgwick County—
9-25-2e Harrison, Smith & Keller 1.
Seward County—
33-32-34w Hitch, Vickers Pet. 1.
Smith County—
18- 5-15w Smith, Gardener et al 1.
Wells Drilling and Shut Down
(Shut down wells indicated by *)
Barber County—
27-30-14w Pickens, Rowland et al 1*.
30-30-14w Richardson, Skelly Oil et al 1*.
35-32-14w Ott, Vickers & Miller 1.
13-33-13w Alexander, Schaffer O. & G. 1.
14-34-11w Martin, B. B. Brown et al 1*.
Barton County—
17-19-11w Smith, Huffine et al 1*.
28-18-12w Sooy, Rankin et al 1*.
12-20-13w Ward, Everette & Wiley 1*.
Chase County—
31-18-7e Lipps, Empire G. & F. 2.
36-18-7e Mulvane, Miss. Valley Oil 1.
36-22-9e Shambaugh, Mid-Kansas Oil 4.
Cloud County—
6- 6-4w Murdock, Concordia O. & G. 1*.
Coffey County—
10-21-15e Bodley, Kinney et al 1*.
17-22-17e Volland, McGinnis et al 1*.
14-23-16 Jones, Fidelity Oil 1*.
Dickinson County—
23-13-3e Jones, Leeward Pet. 1*.
Edwards County—
7-23-19w Noberwell, Edwards County Pet. 1*.
Ellsworth County—
3-16-8w Herman, Wrightsman 1.
Franklin County—
17-16-18e Owens, Smith, Thrice & Fisher 1*.
22-16-21 Parris, Leeward Pet. 1.
Geery County—
18-11-5e Kurtze, Kirby & Wright 1.
Graham County—
27- 8-25w St. John, Gulf Coast Drlg. Co. 1*.
Harper County—
28-31-9w Muir, Wakefield et al 1.
19-32-5w Burk, Berry Pet. 1*.
22-34-6w Caton, Bu-Vi-Bar 1.
Harvey County—
10-23-3w Freeson, Liggett et al 1.
17-24-3w Boyle, Sinclair Oil 1.
Hodgeman County—
19-21-22w Frizzell, Spencer & Marconnette 1*.
Jefferson County—
13- 9-19e Edwards, Northern Counties 1*.
Labette County—
26-32-17 Wilks, Ark. Fuel Oil 1*.
1-32-20 Thurman, Noble O. & G. 1*.
33-32-20 Burnes, W. C. Willy 1*.
1-33-17e Hornbeck, Cowell et al 1*.
5-35-20 Lipps, Wantland et al 1*.
Lincoln County—
35-10-10w Brown, Red Bank Oil 1.
Logan County—
14-14-33w Moffett, Coon et al 1*.
McPherson County—
29-18-2w Anderson, Waugh & Casey 1.
Mitchell County—
10- 7-10w Kyle, Marland Oil 1*.
Morris County—
21-17-7e Welcher, Bowmand & Jones 1*.
24-17-9e Cessman, Rock Creek Oil 1*.
Nemaha County—
19- 3-11e Myers, Nemaha O. & G. 1*.
Osborn County—
19- 8-13w Bliss, Krueger et al 1.
Osage County—
3-15-15e Lanaes, Barber et al 1*.
27-15-16e Baley, West et al 1*.
8-17-17 Neil, Mulle Vit Dev. Co. 1.
Pottawatomie County—
11-10-12 St. Mary, Crawford et al 1*.
Reno County—
10-23-4w Magnuson, Sheldon et al 1*.
35-23-7w Nesley, Fleeger & Mid Kansas Oil 1.
36-24-7w Rexroad, Miss. Valley Oil 1.
24-24-8w Smith, Hartman & Skaer 1*.
9-25-7w High, Cassody Oil 1.
7-26-7w Stevens, Hopper et al 1.
25-26-9w Dutton, T. B. Slick 1.
Riley County—
20-10-7e Thierer, Youker et al 1*.
Rooks County—
11- 9-16w Lukman, Livingston et al 1.
35-10-19w Casey, Findless et al 1.
Saline County—
29-14-2w Davis, L. S. Johnson et al 1.
26-15-2w Sheldon, Brown & Woodward 1.
15-15-4w Holquest, Thrall et al 1*.
Sedgwick County—
6-25-1e Poff, Boyle et al 1*.
34-26-1e Jaden, Wichita O. & G. 1*.
7-26.2e Mills, Lamson et al 1.
2-29-2e Flemming, Higgins 1*.
Seward County—
14-33-33w Sop, Wilson et al 1.
Shawnee County—
36-11-13e Werner, Holl et al 1*.
Stafford County—
24-22-11w Richardson, Randall & Johnson 1*.
Wabaunsee County—
15-13-12e Henderson, Williams et al 1*.
Wilson County—
3-27-14e Dana, Allison & Fitzwilliams 1.
22-28-13e Thompson, Price et al 1*.
29-30-17e Smally, West & Williams 1*.
Rigs, 11; wells drilling, 70; total, 81.

EAST CENTRAL TEXAS

Summary of Field Operations

	C.	Prod.	D.	G.	R.	D.	T.
Limestone County..	29	7,655	7	0	3	17	20
Navarro County	1	0	1	0	2	9	11
Anderson County.....	2	0	2	0	0	1	1
Kaufman County.....	1	0	1	0	0	0	0
Cherokee County ...	1	0	1	0	0	3	3
Milam County	1	0	1	0	0	0	0
Miscellaneous	0	0	0	0	0	8	8
Total October ...	35	7,655	13	0	5	38	43
Total September ..	32	20,127	8	0	13	55	68
Difference	3	12,572	0	0	8	17	25

COMPLETED WELLS
LIMESTONE COUNTY

Rosson, Moss & Keeling 4..... 150
Cochrum, Transcontinental 2..... dry
Cogsdell, Transcontinental 5..... 250
Cogsdell, Transcontinental 7..... 400
Rosson, Transcontinental 11..... 210
Medlock, Transcontinental 2..... 500
Ross, Transcontinental 2..... dry
Rosson, Transcontinental 9..... dry
Peoples, Penn & Navarro Oil 1..... dry
Rosson, Moss & Keeling 3..... 485
Cogsdell, Transcontinental 6..... 330
Rosson, Transcontinental 8..... 350
Rosson, Transcontinental 14..... 430
Rosson, Barclay & Meadows 2..... 150
Rosson, Godley Oil 2-A..... 720
Erskine, Transcontinental 2..... dry
Rosson, Transcontinental 12-A..... 200
Rosson, Transcontinental Oil 13-A.. 60
Cochrum, Transcontinental 3..... dry
Rosson, Transcontinental 3-A..... 450
Rosson, Transcontinental 6-A..... 220
Atkins, Pure Oil 2..... 200
Rosson, Atlantic O. P. Co. 2..... 140
Rosson, Simms Oil 1-A..... dry
Erskine, Transcontinental 3..... 455
Rosson, Transcontinental 10-A..... 300
Medlock, Transcontinental 3..... 650
Rosson, Transcontinental 11-A..... 600
Rosson, Transcontinental 7-A..... 400

Wells completed 29
Production 7655

Dry	7
Gas	0

MISCELLANEOUS

Anderson County—
Jackson, M. A. Davey ..... abd
Greenwood, Navarro Oil 5..... dry

Kaufman County—
Haynie Bros., Atlantic O. P. Co..... dry

Cherokee County—
Boling, Humphrey Corp. 1 ..... abd

Milam County—
Battle, Alexander & Lyle 1 ..... dry

Navarro County—
Woolens, Garland Kent 2 (shallow)..... dry
Wells completed, 6; dry or abandoned, 6.

RIGS AND WELLS DRILLING
LIMESTONE COUNTY
Rigs
Stuberanch, Smith et al 1.
Hargrave, Eisenmyer et al 1.
Jones, Dillon & Hammond 1.

Wells Drilling
McAdoo, Kellam et al 1.
Atkins, Pure Oil 4.
Cogsdell, Transcontinental 8.
Rosson, Transcontinental 13 (sand.)
Bass & Sweatt, Evangeline Oil 1.
Riddle, Grayburg Oil 1.
Rosson, E. L. Smith Oil 1-A.
Rossen, The Texas Company 1*.
Medlock, Transcontinental 4.
Rosson, Transcontinental 3-A.
Rosson, Transcontinental 14-A.
Rosson, Transcontinental Oil 15-A*.
Oliver, Pure Oil 1.
Oliver, Shaffer et al 1*.
Gunter, Humble O. & R. 1.
Bassett, Humble O. & R. - G
Bassett, Pandem Oil 1*.
Fenner, Dillon & Hammond 1.
Wells drilling, 17; rigs, 3; total, 20.

NAVARRO COUNTY
Rigs
Tramel, Carrito Oil 1.
Cox, Stanley et al 1.

Wells Drilling
Mitchell, Osborne et al 1*.
Harrison, Penn et al 1.
Fallwood, Farris et al 1*.
Woolens, Garland Kent 2, deep*.
Cheney, The Texas Company.
Pearce, McNeil et al 1.
Swink, Sun Oil 3.
McClelland, McDonald Bros. 2*.
Longbotham, Snowden & McSweeney 13*.
Wells drilling, 9; rigs, 2; total, 11.

MISCELLANEOUS
Wells Drilling

Anderson County—
School Land, Humble O. & R. 1-A.

Cherokee County—
Templeton, Humble O. & R. 1.
Durak, Nicholle & Wife 1.
Summers, Magnolia Pet. 1.

Falls County—
Kyser, Forbes et al 1*.
Peacock, High Bank Oil 1*.

Freestone County—
Pickens, Kechi Pet. 1.

Henderson County—
Sterrett, Ferdinand Heine 1.
Martin, Evans et al 1*.

Hopkins County—
Brooks, Kelsey et al 1*.

Hunt County—
Bennett, Tullall & Kelsey 1.

McClennan County—
Punchard, Pecan O. & G. 1*.
Wells drilling, 12; rigs, 0; total, 12.

NORTH AND WEST TEXAS

Summary of Wells Completed

West Texas—	Comp.	Prod.	Dry	Gas
Concho	1	0	1	0
Crane	13	4,983	1	0
Crockett	2	0	2	0
Gaines	1	0	1	0
Garza	2	7	1	0
Howard	2	200	0	0
Jeff Davis	1	0	1	0
McCulloch	1	0	1	0
Mitchell	3	185	0	0
Pecos	1	0	1	0
Reagan	10	1,485	1	0
Stonewall	2	0	2	0
Sutton	1	0	1	0
Upton	44	8,860	4	0
North Texas—				
Archer	107	16,696	30	0
Brown	96	9,489	26	0
Callahan	21	649	7	0
Clay	7	28	4	0
Coleman	10	25	8	1
Comanche	1	40	0	0
Cooke	16	746	3	0
Eastland	16	93	10	2
Foard	1	0	1	0
Haskell	1	0	1	0
Jack	4	110	3	0
Knox	2	0	2	0
Mills	1	0	1	0
Montague	69	4,108	9	2
Palo Pinto	2	0	1	1
Shackelford	59	4,709	24	0
Stephens	16	1,015	7	2
Throckmorton	9	30	5	3
Wichita	68	5,394	16	0
Wilbarger	39	8,272	4	0
Young	58	1,136	27	0
Total October	687	68,260	206	11
Total September	569	58,959	176	13
Difference	118	9,301	30	2

Rigs and Wells Drilling

West Texas—	Rigs	Drg.	S.D.	Ttl.
Crane	5	21	1	27
Crockett	2	11	1	14
Mitchell	3	13	2	18
Reagan	10	42	1	53
Upton	20	40	3	63
Miscellaneous	11	45	35	91
Total West Texas	51	172	43	266
North Texas—				
Archer	10	55	2	68
Brown	7	75	17	99
Callahan	1	22	3	26
Coleman	1	17	8	26
Eastland	0	24	11	35
Jack	3	8	4	14
Montague	6	42	3	51
Shackelford	8	55	9	72
Stephens	3	22	11	36
Throckmorton	0	22	5	27
Wichita	10	47	8	65
Wilbarger	10	42	8	60
Young	4	25	3	32
Miscellaneous	3	44	25	77
Total North Texas	70	500	118	688
Grand total October	121	672	161	954
Grand total September	144	659	165	968
Difference	23	13	4	14

WEST TEXAS COMPLETIONS
CRANE COUNTY
Crier-McElroy, Gulf Prod. Co. 1.....1245
Crier-McElroy, Gulf Prod. Co. 2..... 652
P. J. Lea, Cranfill Bros. 1..... dry
Crier-McElroy, W. H. Dunning 1..... 901
University Land, Magnolia Pet. Co. et al 2..... 100
Hughes, Marland Oil Co. 2-C..... 165
Hughes, Marland Oil Co. 3-C..... 150
Hughes, Marland Oil Co. 1-D.....1304
Hughes-Gibbs, Marland Oil Co. 1..... 101
King, The Texas Company 2..... 126
King, The Texas Company 5..... 120
King, The Texas Co. 7..... 165
Union Land, The Texas Co. 1-F..... 14

Wells completed 12
Production 4983
Dry 1

CONCHO COUNTY
Schultz, Kemper Kimberlin 1..... dry

CROCKETT COUNTY
R. Massie, J. D. Young et al 1..... dry
University, E. P. Zoch et al 1..... dry

GAINES COUNTY
Lindsey, Hucony Gas Co. 1..... dry

GARZA COUNTY
Swenson, Deep Rock Oil Co. 1..... dry
J. M. Boren, Emerald Oil Co. 1..... 7

Wells completed 2
Production 7
Dry 1

HOWARD COUNTY
Chalk, Magnolia Pet. Co. 3-A..... 100
Otis Chalk, Marland Oil Co. 3..... 100

Wells completed 2
Production 200

JEFF DAVIS COUNTY
Roberts, Van Bibber et al 1..... dry

MITCHELL COUNTY
Womack, Atlantic Oil Producing Co. 6.. 85
Womack, Atlantic Oil Producing Co. 7.. 94
J. J. Handley, The California Oil Co. 1.. 6

Wells completed 3
Production 185

PECOS COUNTY
Hershenson, Dixie Oil Co. 1..... dry

REAGAN COUNTY
University, Big Lake Oil Co. 79..... 150
University, Big Lake Oil Co. 83..... 175
University, Big Lake Oil Co. 92..... 165
University, Big Lake Oil Co. 8-B..... 40
University, Texon Oil & Land Co. 47 (group 1)..... 542
University, Gr. 1, Texan Oil & Land Co. 49 105
University Gro. 1, Texon Oil & Land Co. 52..... 140
Group 1, Texon Oil & Land Co. 53.. 68
Group 1, Texon Oil & Land Co. 5-A.... 100
Walters, Simon et al 1..... dry

Wells completed 10
Production 1,485
Dry 1

STONEWALL COUNTY
Craft, Arkansas Fuel Co. 1..... dry
J. Q. Ward, Ward Syndicate 1..... dry

SUTTON COUNTY
Allison, Chesapeake Oil Co. 1..... dry

UPTON COUNTY
Burleson, Dixie Oil Co. 7.....1375
Hughes, Dixie Oil Co. 5.....1152
Hughes, Dixie Oil Co. 6..... 288
Hughes, Dixie Oil Co. 7..... 700
M. E. Baker, Gulf Prod. Co. 2..... dry
J. H. Shirk-D, Gulf Prod. Co. 5..... 57
A. S. Burleson, Humble Oil & Refining Co. 2..... 141
Burleson, Humble Oil & Ref. Co. 3..... 85
Burleson, Humble Oil & Ref. Co. 4..... 65
J. T. McElroy, Humble Oil & Ref. Co. 1. dry
Wooley, Independent Oil & Gas Co. 3.... 337
Rankin, Kirkwood et al 1..... dry
Burleson, Marland Oil Co. 20..... 40
Burleson, Marland Oil Co. 21..... 50
Burleson, Marland Oil Co. 22..... 90
Burleson, Marland Oil Co. 23..... 135
Burleson, Marland Oil Co. 24..... 100
Burleson, Marland Oil Co. 25..... 97
Burleson, Marland Oil Co. 26..... 117
Burleson, Marland Oil Co. 27..... 130
Burleson, Marland Oil Co. 29..... 100
Burleson, Marland Oil Co. 30..... 75
Burleson, Marland Oil Co. 33..... 445
Burleson, Marland Oil Co. 2-A..... 10
Burleson, Marland Oil Co. 3-A..... 18
Sanger, Marland Oil Co. 9..... 155
Sanger, Marland Oil Co. 13..... 105
Sanger, Marland Oil Co. 14..... 45
Sanger, Marland Oil Co. 15..... 136
Harrison, Plateau Oil Co. 1..... dry
Baker, Repu lic Prod. Co. 4..... 80
Bowers, Roxana Pet. Corp. 3..... 802
Della Bowen, Roxana Pet. Corp. 2..... 172
Hughes, Roxana Pet. Corp. 1..... 237
Burleson, Sun Oil Co. 4..... 75
Burleson, Sun Oil Co. 5..... 75
Burleson, The Texas Company 1..... 202
Burleson, The Texas Company 3..... 42
Burleson, The Texas Company 4..... 80
H. King, The Texas Company 1..... 20
King, The Texas Company 5..... 66
King, The Texas Company 9..... 658
Milton Shirk, Texas Pacific Coal & Oil Co. 1..... 103
Milton Shirk, Texas Pacific Coal & Oil Co. 2..... 110

Wells completed 44
Production 8,860
Dry 4
Gas 6
Gas Production 0

NORTH TEXAS COMPLETIONS
ARCHER COUNTY
Turbeville-B, American Ref. Co. 1..... 15
Turbeville, American Ref. Co. 4..... dry
Turbeville, American Ref. Co. 5..... 160
Turbeville, American Ref. Co. 6..... 26
Turbeville, American Ref. Co. 1-B..... 15
Logan et al, Atlantic Oil Prod. Co. 1.. dry
Oldham, Atlantic Oil Prod. Co. 7..... dry
Abercrombie & Taylor-B, Bridwell & Heydricks 1 ..... dry
Robinson, Benton & Langford 1..... 5
Turbeville, L. T. Burns 1..... 35
Turbeville, L. T. Burns 2..... 700
Kinder, Consolidated Oil Co. 1..... dry
Kunkel, Cook & Reeder 4..... 30
F. Jehlik, Cosden & Consolidated Oil Co. 1..... dry
Parkey-A, Empire Gas & Fuel Co. & Moran 2..... 30
Parkey, Empire Gas & Fuel Co. 3..... 52
Parkey, Empire Gas & Fuel Co. 4..... 10
Thomas, Gates et al 11..... 55
Thomas, Gates et al 13..... 75
Thomas, Gates et al 14..... 55
Thomas, Gates et al 15..... 50
Thomas, Gates et al 16..... 70
Thomas, Gates et al 17..... 44
Farmer, Golding & Cochran 1..... dry
Lowe, Golding & Cochran 4..... dry
Wilson, Golding & Cochran & Phillmack Oil Co. 1..... dry
Kell Kempner-C, Gulf Prod. Co. 1..... 92
Kell Kempner-C, Gulf Prod. Co. 2..... 95
S. H. Melugin, Gulf Prod. Co. 1..... dry
Wilson, H. J. Heartwell 1..... dry
Andrews, Hill et al 1..... dry
Hamilton, Humble Oil & Ref. Co. 17.... 50
Parrish, T. F. Hunter 1..... 70
Wilson, T. F. Hunter 1..... 100
Andrews-B, Jeffers & Newby 2..... dry
McCrory-C, Kentucky Oil Co. & Empire Gas & Fuel Co. 1..... dry
Duke Parrish, McCarty Oil Co. 3..... 20
Parrish Bros. McCarty Oil Co. 4..... 35
Hudson, Magnolia Pet. Co. 3..... 20
Hudson, Magnolia Pet. Co. 4..... 22
Little, Magnolia Pet. Co. 8..... dry
Lowe, Magnolia Petroleum Co. 17..... 25
Parrish-B, Magnolia Pet. Co. 12..... 5
Thomas, Marland Oil Co. 11..... 20
Thomas, Marland Oil Co. 4-B..... 72
Turbeville, Marland Oil Co. 4..... 200
Turbeville, Marland Oil Co. 6..... 1
Turbeville, Marland Oil Co. 7..... 600
Turbeville, Marland Oil Co. 9..... 670
Perkins, Marland Oil, Bass & Dillars 1.. 35
White, Marland Oil & Kentucky Oil Co. 2..... 10
Andrews, Mid-Kansas Oil & Gas Co. 4.. dry
Logan-B, Murchison & Fain 3..... 15
Logan-B, Murchison & Fain 4..... 20
Logan-B, Murchison & Fain 5..... 30
Turbeville, Muse & Robinson 1..... dry
Turbeville, John O'Neil 1..... dry
Hudson, Pandem Oil Corp. 4..... 19
Hudson, Pandem Oil Corp. 5..... 30
Thomas, Pandem Oil Corp. 8..... 40
Thomas, Pandem Oil Corp. 9..... dry
Turbeville, Pet. Prod. Co. et al 1.....1200
Turbeville, Pet. Prod. Co. et al 2..... 900
Turbeville, Pet. Prod. Co. et al 3.....1260
Turbeville, Plains Prod. Co. 1..... 450
Turbeville, Plains Prod. Co. 2..... 400
Wilson, Reese Carter 1..... 25
Rogers, Roberts Oil Corp 15..... 35
Abercrombie & Taylor, Roxana Pet. Corp. 5..... 100
Abercrombie & Taylor, Roxana Pet. Corp. 6..... 110
Kreeger, Roxana Pet. Corp. 6..... dry
Muller, Schermerhorn Oil Co. 2..... dry
Prideaux, Schermerhorn Oil Co. 1..... 20
Prideaux, Schermerhorn Oil Co. 2..... 16
Yeatts et al Shappell Oil Co. 1..... dry
Turbeville, Shappell Oil Co. 3 (was Plains Prod. Co.)..... 240
Rogers, Shaw & Rathke 4..... 10
Turbeville-A, Simms Oil Co. 1..... T.A.
Turbeville-A, Simms Oil Co. 8..... 200
Turbeville-A, Simms Oil Co. 9..... 930
Turbeville-A, Simms Oil Co. 10..... 100
Turbeville, Simms Oil Co. & Burns 3.... 15
Turbeville, Simms Oil Co. & Burns 4.. dry
Turbeville-A, Simms Oil Co. & Burns 1.. 230
Brown, Sun Oil Co. 4..... 4
Richardson, The Texas Company 14.... dry
Richardson, The Texas Company 15.... 15
Turbeville-C, The Texas Company 7....1000
Turbeville-C, The Texas Company 8....1000
Turbeville-C, The Texas Company 9.... 850
Turbeville-C, The Texas Company 10..1200
Turbeville-C, The Texas Company 11.. 725
Turbeville-C, The Texas Company 12.. 720
Turbeville-C, The Texas Company 13.. 506
Thom, The Texas Co. & H. Hines 1.... dry
Parrish, Texhoma Oil & Refining Co. & Sheldon 1..... 15
Hamilton, Texhoma Oil & Ref. Co. 16.. 25
Hamilton, Texhoma Oil & Ref. Co. 17.. dry
Kemp & Kempner, Texhoma Oil & Refining Co. 2..... dry
Kemp & Kempner, Texhoma Oil & Refining Co. 3..... 121
Kemp & Kempner, Texhoma Oil & Refining Co. & Staniforth 9..... 73
Farmer, Tidal Oil Co. 1..... 125
Harmonson, Trammel & Moore 1..... dry
Ward, Underwood Drilling Co. 1..... dry
Turbeville, United Prod. & Grisham 1.. dry
Turbeville, Wanderer Oil Co. & Perkins & Cullum 1 200
Turbeville, Wanderer Oil Co., Perkins & Cullum 2..... 100
Prideaux, Lee Wilson 1..... 27

Wells completed 107
Production 16,696
Dry 30
Gas 0
Gas Production 0

BROWN COUNTY
Whitted, Advance Oil Co. 1..... dry
Fry, Amerada Pet. Corp. 1..... 330
J. H. Fry, Amerada Pet. Corp. 2..... 240
F. W. Turner, Amerada Pet. Corp. 1.... dry
Allen, Barkley & Conway 5..... 100
Allen, Barkley & Conway 6..... 125
Eads, Bowers 1..... 100
Stout, Bradstreet 1..... 180
McClanahan, Berryman et al 1..... dry
Cason, Bowers 2..... 10
Lowe, Choate & Henshaw 1..... 500
Smith, Cranfill & Reynolds 1..... dry
Wright, J. C. Cosden 1..... dry
Elmo Williams, J. S. Cosden 1..... 25
Wooldridge, Curry & Moore 4..... 250
Wooldridge, Curry & Moore 5..... 600
Wooldridge, Curry & Moore 6..... 250
Wooldridge, Curry & Moore 7..... 600
Pickett, Curry & Moore 8..... 75
Byrd, Doxier & Mullov 2..... dry
DeBusk, DeBusk Oil Co. 1..... dry
Green, Empire Gas & Fuel Co. 1..... dry
White Est., Gibson Oil Corp. 2..... 150
Thompson, Kilman & McMurray 6..... 50
Thompson, Gilman & McMurray 7..... 100
Newton, Gillespie 5..... 25
Keller, Holdeman 1..... dry
Byrd, Huber Oil Co. 1-B..... dry
Fry, Humble Oil & Ref. Co. 3..... 125
Fry, Humble Oil & Ref. Co. 4..... 125
Hickman, Humble Oil & Ref. Co. 1..... 50
Hickman, Humble Oil & Ref. Co. 2..... 735
Hickman, Humble Oil & Ref. Co. 4..... 150
Hodnett, Humble Oil & Ref. Co. 7..... 300
J. C. Kilgore, Humble Oil & Refining Co. 4-A..... dry
E. P. & W. H. Kilgore, Humble Oil & Ref. Co. 7-B..... 40
E. P. & W. H. Kilgore, Humble Oil & Ref. Co. 9-B..... 10
E. P. & W. H. Kilgore, Humble Oil & Ref. Co. 10-B..... dry
J. C. Kilgore, Humble O. & Ref. Co. 11-B 60
E. P. & W. H. Kilgore, Humble Oil & Ref. Co. 9-C..... 150
E. P. & W. H. Kilgore, Humble Oil & Ref. Co. 4-D..... 100
Wooldridge, Humble O. & R. Co. 2..... 250
Wooldridge, Humble O. & R. Co. 3..... 150
Wooldridge, Humble O. & R. Co. 4..... 40
Wooldridge, Humble O. & R. Co. 5..... 125
Kilgore Bros. Huffman 6..... 55
Perry, Hurley Oil Co. 1..... dry
Leach, Hynes et al 1..... dry
Foster, Kone Prod. Co. 3..... 35
Foster, Kone Prod. Co. 5..... 100
Foster, Kone Prod. Co. 6..... 100
Foster, Kone Prod. Co. 7..... 75
Foster, Kone Prod. Co. 8..... 150
M. E. Fry, William Lester 5..... 502
M. E. Fry, William Lester 1-A..... dry
Henslee, Louisiana O. & R. Co. 6..... 15
Foster, McKenna et al 7..... 100
Foster, McKenna et al 11..... 125
Foster, McKenna et al 12..... 100
Foster, McKenna et al 13..... 150
Foster, McKenna et al 15..... 250
Josie Wooldridge, McLester Oil Co. 8.. 300
Josie Wooldridge, McLester Oil Co. 9... dry
W. M. Wooldridge, McLester Oil Co. 10.. 180
W. M. Wooldridge, McLester Oil Co. 11.. 130
W. M. Wooldridge, McLester Oil Co. 12.. 100
W. M. Wooldridge, McLester Oil Co. 13.. 75
Fry, Magnolia Petroleum Co. 1..... 20
Fry, Magnolia Petroleum Co. 2..... 60
Broom, Maxwell & Turman 1..... dry
Suttles, Midwest Exploration Co. 12.... 60
Suttles, Midwest Exploration Co. 2-A... 5
Suttles, Midwest Exploration Co. 3-A... dry
Teague, Moore et al 1..... 25
Baird, Parsons et al 1..... dry
Eiland, Parsons et al 1..... dry
Prater, Phillips Petroleum Co. 4..... 25
Allcorn, Ray Oil Co. 1..... dry
White Est., Sawyer et al 2..... 35
Shore, Sinclair Oil & Gas Co. 1..... 100
Newton, T. B. Slick 2..... 15
Cason & Gratham, Smith Oil Co. 1..... 12
Newton, E. L. Smith, Oil Co. 2..... 10
Edington, The Texas Company 7..... 10
Hodnett, Tidal Oil Co. 1..... 120
Hickman, Union Oil & Land Co. 1..... dry
Shore, Wentz O'l Corp. 1..... dry
Newton, West & H-Y Oil Co. 15..... 50
Newton, West & H-Y Oil Co. 16..... 60
Newton, West & H-Y Oil Co. 17..... 40
Newton, West & H-Y Oil Co. 18..... dry
Bourn Bros. Wilhansen et al 1..... dry
Keller, Williamson et al 1..... 30
Keller, Williamson et al 7..... 40
Lawson, Williamson et al 1..... dry
Stone, Wilson et al 1..... 50

Wells completed 98
Production 9,489
Dry 26
Gas 0
Gas Production 0

CALLAHAN COUNTY
Long, Amerada Pet. Corp. 5..... 35
Long, Brown & Co. 4..... 125
Cutbirth, Canary et al 1..... dry
Ramsey & Estes, Cosden et al 1..... dry
Henderson, Cranfill & Reynolds 3..... 150
Henderson, Cranfill & Reynolds 4..... 25
Henderson, Cranfill & Reynolds 5..... 20
Henderson, Cranfill & Reynolds 6..... 40
LaMar, Florence Oil Co. 2..... 10
Jackson, Goodloe & Duffy 2..... dry
Franke, Hughes Dev. Co. 1..... dry
Powell & Leggett, Hughes Dev. Co. 1... dry
Walker & Caldwell, Moore et al 1..... dry
Bond, Prairie Oil & Gas Co. 4..... 60
Cunningham, Prairie Oil & Gas Co. 6... 5
Cunningham, Prairie Oil & Gas Co. 7... 4
Hall, Reeves & Meredith 1..... dry
Bond, T. B. Slick 3..... 75
McDonough, T. B. Slick 3..... 60
Bond, T. B. Slick 4..... 20
McDonough, T. B. Slick 2..... 40

Wells completed 21
Production 649
Dry 7

CLAY COUNTY
Donley, British American Oil Co. 1.... dry
Holloway, Lone Star Gas Co. 28..... 20
Waggoner, Lone Star Gas Co. 28..... 3
Waggoner, Lone Star Gas Co. 29..... 5
Waggoner, Lone Star Gas Co. 30..... dry
Bobby, O'Neil et al 1..... dry
Barry, Richardson Bros. 1..... dry

Wells completed 7
Production 28
Dry 4

COLEMAN COUNTY
Teagle, Bradstreet et al 1 (2,000,000).. gas
Sealy & Smith, Curtis et al 1..... dry
Weathered, Humble Oil & Ref. Co. 1.... dry
Harris, Kirby Pet. Co. 1..... dry
Dibrell Mid-Kansas Oil & Gas Co. 1.... dry
Dibrell, Mid-Kansas Oil & Gas Co. 2.... dry
Gray, Schermerhorn Oil Co. et al 1.... dry
Munger, Texas Pacific Coal & Oil Co. 1. dry
Gray, Urban 1..... 25
West, Wilbord et al 1 ..... dry

Wells cmopleted 10
Production 25
Dry 8
Gas 1
Gas Production 2,000,000

COMANCHE COUNTY
Gwinn, Wolf et al 1..... 40

COOKE COUNTY
Jim Mitchell, S. A. Cochran et al 1.... dry
Dennis, Hooser et al 4..... 15
Dennis, Hooser Oil Co. 5..... 42
Dennis, Hooser Oil Co. 6..... 65
Dennis, Hooser Oil Co. 7..... 200
Dennis-B, Hooser Oil Co. 1..... 18
Hyman, C. C. Lanier 4..... 55
Hyman, C. C. Lanier 5..... 45
Hyman, C. C. Lanier 6..... 35
Hyman, C. C. Lanier 7..... 20
Danglemayer, Lynch, Stahl & Burress 1 51
Cook, McElreath & Suggett 1..... dry
Meador, Shasta Oil Co. 1..... dry
Hyman, Sun Oil Co. 2..... 100

Hyman, Sun Oil Co. 4..... 55
Hyman, Sun Oil Co. 5..... 45

Wells completed 16
Production 746
Dry 3

EASTLAND COUNTY

Connellee, Arkansas Fuel Co. 6..... 40
Nobie, Chestnut & Smith 1..... dry
Butler, Conway Bros. 2..... dry
Allison, Corzelius Bros. 1..... dry
Norris, Corzelius Bros. 1..... dry
Wright, Eastland Oil Co. 4 (3,000,000).. gas
Hughes, Gordon 1..... dry
H. P. Ferrell et al Gulf Prod. Co. 1..... dry
J. W. Horn-A, Gulf Prod. Co. 1..... dry
Harbin, Lewis & Moore 1..... 30
Whittenberg, Lewis & Moore 1..... 15
Thurman, Magnolia Pet. Co. 1..... 8
Farmer State Bank, Mid-Kansas Oil & Gas Co. 1..... dry
Clark, Navarro Oil Co. 1..... dry
Motes, Parsons et al 5 (2,500,000)..... gas
Scott, Teatsworth et al 10..... dry

Wells completed 16
Production 93
Dry 10
Gas 2
Gas Production 5,500,000

FOARD COUNTY

Burress, Central Oil Ints. 1..... dry

HASKELL COUNTY

Bunkley, Bridewell & Mayfield 1..... dry

JACK COUNTY

Loving, Burk & Greis Oil Co. 1..... dry
Preston, Buttram Pet. Co. 5..... 110
Bailey, Kelly et al 1..... dry
Carpenter Est., Watchorn O. & G. Co. 1.. dry

Wells completed 4
Production 110
Dry 3

KNOX COUNTY

Clark, Brazos Bend Oil Co. 1..... T.A.
Lawson, Tolbert Saunders 1..... T.A.

MILLS COUNTY

Ratliff, Bowers et al 1..... dry

MONTAGUE COUNTY

Howard, Arco Oil Co. 3..... dry
Snapp Est. Camp Oil & Gas Co. 1..... dry
Rollis et al, Cato Oil Co. 1..... 63
Rollis et al, Cato Oil Co. 2..... 98
Converns, Commercial Pet. Co. 1..... dry
La Force Est., Consolidated Oil Co. 1.. dry
Maddox, Farlan Oil Co. 4..... 60
Howard-A, F. H. E. Oil Co. 4..... 50
Howard et al-A, F. H. E. Oil Co. 5..... 25
Howard-A, F. H. E. Oil Co. 6..... 8
Howard-B, F. H. E. Oil Co. 2..... 20
Howard-B, F. H. E. Oil Co. 3..... 30
Maddox, F. H. E. Oil Co. et al 1..... 3
Salmon-B, F. H. E. Oil Co. 1..... 15
Salmon et al-B, F. H. E. Oil Co. 2..... 12
Salmon et al-B, F. H. E. Oil Co. 3..... 20
Maddox, Gracey & Kehle 3..... 72
N. J. Howard et al, Gulf Prod. Co. 2.... 175
N. J. Howard, Gulf Prod. Co. 3..... 30
J. W. Rowland, Gulf Prod. Co. 1..... dry
Maddox, Harris & Simons 3..... 65
Maddox, Harris & Simons 4..... 75
Hines, Humble Oil & Refing Co. 12.. 8
Maddox Humble Oil & Ref. Co. 4..... 30
Maddox, Humble Oil & Ref. Co. 9..... 35
Maddox, Humble Oil & Ref. Co. 10..... 60
Howard et al, McMan Oil & Gas Co. 2.. 22
Maddox, Olean Pet. Co. 6..... 60
Maddox, Olean Pet. Co. 7..... 50
Rowland-B, Pure Oil Co. 1..... 100
Rowland et al-B, Pure Oil Co. 2..... 115
Maddox-C, Pure Oil Co. 3 (5,000,000 gas)..... 80
Maddox-C, Pure Oil Co. 4..... 70
Maddox-D, Pure Oil Co. 1..... 50
Cunningham, The Texas Company 1.... dry
Gist-A, The Texas Co. 16 (60,000,000 gas)..... dry
Gist-A, The Texas Company 24..... 70
Gist-B, The Texas Company 3..... 60
Hodges, The Texas Company 1..... dry
Howard-B, The Texas Company 2..... 24
Martin, The Texas Co. 4..... 100
Oldham, The Texas Company 21..... 82
Oldham, The Texas Company 22..... dry
Oldham, The Texas Company 24..... 50
Oldham, The Texas Company 25..... 40
Oldham, The Texas Company 29..... 39
Bouldin, Texhoma O. & Ref. Co. 4-A.. 116
Bouldin-A, Texhoma Oil & Ref. Co. 5.. 106
Bouldin-A, Texhoma Oil & Ref. Co. 6.. 30
Jones, Texhoma Oil & Ref. Co. 4..... 18
Howard-A, Texhoma Oil & Ref. Co. 10.. 47
Howard-A, Texhoma Oil & Ref. Co. 11.. 23
Howard-B, Texhoma Oil & Ref. Co. 1.. 10
Howard-B, Texhoma Oil & Ref. Co. 2.. 50
Maddox-A, Texhoma Oil & Ref. Co. 4.. 60
Maddox-A, Texhoma Oil & Ref. Co. 5.. 150
Rowland, Texhoma Oil & Ref. Co. 8.... 27
Rowland, Texhoma Oil & Ref. Co. 9.... 80
Rowland, Texhoma Oil & Ref. Co. 10.... 25
Rowland, Texhoma Oil & Ref. Co. 11.... 240
Rowland, Texhoma Oil & Ref. Co. 12.... 30
Rowland, Texhoma Oil & Ref. Co. 13.... 35
Rowland, Texhoma Oil & Ref. Co. 15.... 302
Rowland, Texhoma Oil & Ref. Co. 16.... 45
Rowland-B, Texhoma Oil & Ref. Co. 1.. 142
Rowland et al-B, Texhoma Oil & Ref. Co. 2..... 88
Rowland-B, Texhoma Oil & Ref. Co. 3.. 66
Rowland-C, Texhoma Oil & Ref. Co. 1.. 190
Salmon, Texhoma Oil & Ref. Co. 2..... dry

Wells completed 69
Production 4,108
Dry 9
Gas 2
Gas production 85,000,000

PALO PINTO COUNTY

Guest, Chestnut & Smith Corp. 1..... dry
Gilbert, Owens et al 1 (4,500,000)..... gas

Wells completed 2
Dry 1
Gas 1
Gas production 4,500,000

SHACKELFORD COUNTY

Moberly, Albany Oil Co. 9..... 40
Davis, Amerada Pet. Corp. 1..... dry
Nail, Carter Dev. Co. 2..... dry
Nail, Carter Dev. Co. 3..... dry
R. Ivy, Cranfill & Reynolds 1..... dry
Diller Bros. Dingee et al 1..... dry
Nail, Googan 1..... dry
Goodwin, Gwinnup et al 1-72..... dry
Williams, Hazelton et al 1..... dry
Reynolds, Halle & Knight Oil Corp. 1... dry
Matthews, Hodges & Engle 4..... 10
Reynolds, Hope Pet. Co. 9..... 40
Reynolds, Hope Pet. Co. 10..... dry
Reynolds, Hope Pet. Co. 11..... 60
Diller Bros., Hughes et al 1..... dry
Cook, Humble Oil & Ref. Co. 9..... 200
Cook, Humble Oil & Ref. Co. 10..... 65
Cook, Humble Oil & Ref. Co. 11..... 25
Cook, Humble Oil & Ref. Co. 12..... dry
Davis, Independent Oil & Gas Co. 2..... 100
Matthews, Marland Oil Co. 1..... dry
Newell, Merry Bros. & Perrini 2..... dry
Matthews, Overless 3..... dry
Matthews, Robert Oil Corp. 1..... dry
Cook, Roeser & Pendleton 1-B-60..... 500
Cook, Roeser & Pendleton 3-B-60..... 215
Cook, Roeser & Pendleton 6-B-60..... 100
Cook, Roeser & Pendleton 7-B-60..... 528
Cook, Roeser & Pendleton 8-B-60..... dry
Cook, Roeser & Pendleton 9-B-60..... dry
Cook, Roeser & Pendleton 10-B-60..... dry
Cook, Roeser & Pendleton 11-B-60..... 25
Cook, Roeser & Pendleton 3-B-61..... 75
Cook, Roeser & Pendleton 4-B-61..... 153
Cook, Roeser & Pendleton 17-B-85..... 20
Cook, Roeser & Pendleton 18-B-85..... 25
Cook, Roeser & Pendleton 19-1185..... dry
Cook, Roeser & Pendleton & Marland Oil Co. 2-A-60..... 21
Cook, Roeser & Pendleton & Marland Oil Co. 25-A-84..... 100
Cook, Roeser & Pendleton & Marland Oil Co. 27-A-84..... 100
Cook, Roeser & Pendleton & Marland Oil Co. 28-A-84..... 100
Cook, Roeser & Pendleton & Marland Oil Co. 29-A-84..... 100
Cook, Roeser & Pendleton & Marland Oil Co. 30-A-84..... 125
Cook, Roeser & Pendleton & Marland Oil Co. 31-A-84..... 150
Cook, Roeser & Pendleton & Marland Oil Co. 32-A-84..... 139
Cook, Roeser & Pendleton & Marland Oil Co. 34-A-84..... dry
Cook, Roeser & Pendleton 11-B-84..... 150
Cook, Roeser & Pendleton 12-B-84..... 150
Cook, Roeser & Pendleton & Marland Oil Co. 15-A-85..... 65
Cook, Roeser & Pendleton & Marland Oil Co. 17-A-85..... 100
Cook, Roeser & Pendleton & Marland Oil Co. 18-A-85..... 181
Nail, Roeser & Pendleton & Marland Oil Co. 1-A-116..... dry
Nail, Roeser & Pendleton & Marland Oil Co. 1-A-121..... dry
Cook, Roeser & Pendleton & Marland Oil Co. A-24-A-84..... 80
Cook, Roeser & Pendleton & Marland Oil Co. A-26-A-84..... 160
Dyer, Southern Pet. Explor. Co. 1..... 12
Moberly, Tannehill Oil Co. 1-59 (2,500,000 gas)..... 720
Osborne, The Texas Company 1..... 75
Poindexter, C. E. Waterbury et al 1.... dry

Wells completed 59
Production 4,709
Dry 24
Gas 9
Gas production 9

STEPHENS COUNTY

Vick, Atkinson & Sandefer 1..... dry
Satterfield Heirs, Chastain & Donley 1. dry
Cockerall, Humble Oil & Ref. Co. 1 (500,000 gas)..... 10
Richardson, Humble Oil & Ref. Co. 1 (10,000,000)..... gas
Swenson, Jones 32..... dry
Christenson, Livingston et al 1..... dry
J. W. Hill, Mid-Kansas O. & G. Co. 19.. 30
Richardson, Mid-Kansas O. & G. Co. 2.. dry
Bruce, Mook-Texas Oil Company 1..... dry
Martin, Pennok Oil Co. 8..... dry
Akin, Phillips Pet. Co. 1..... 20
Moon, Phillips Pet. Co. 1 (500,000 gas). 10
Pratt, Texas Fidelity Oil Corp. (20,000,000 gas)..... 600
Pratt, Texas Fidelity Oil Corp. 2 (8,000,000 gas)..... 280
Binney, Texas Pacific C. & O. Co. 67... 65
Gardenshire Acct. 2, Texas Pacific Coal & Oil Co. 5 (4,500,000)..... gas

Wells completed 16
Production 1,015
Dry 7
Gas 2
Gas production 13,500,000

THROCKMORTON COUNTY

Buchanan, Associated Pet. Co. 1 (4,000,000)..... gas
Lee, Cranfill & Reynolds 1 (8,000,000). gas
Batchler, Humble O. & Ref. Co. 1..... dry
McKeichen, Humble O. & Ref. Co. 1..... dry
Overcash, Humble Oil & Ref. Co. 1 (8,000,000)..... gas
Ledbetter, McCurdy et al 1..... dry
Davis, Martin & Hines 1..... dry
Mathews, M. H. Overless 1..... 30
Parrott, Reiter & Foster 2..... dry

Wells completed 9
Production 30
Dry 5
Gas 3
Gas production 20,500,000

WICHITA COUNTY

Ancell-A, Apple & Brandeberry 1..... 20
Michna, Barney Cocpburn 1..... dry
Pec, Brady & Hedrick 1..... 250
Ward & Todd, Bridwell & Heydrick 8.. 450
Ward & Todd, Bridwell & Heydrick 9.. 75
Ward & Todd, Bridwell & Heydrick 11.. 300
Ward & Todd, Clark et al 8..... 1250
Ward & Todd, Clark et al 9..... 80
Ward & Todd, Clark et al 10..... 260
Ward & Todd, Clark & Campbell 1-E.. 150
Ward & Todd-I, Clark & Campbell 1.... dry
Ward & Todd, Clark Waggoner & Hammond 1..... 100
Ward & Todd, Clark Waggoner & Hammond 2..... 100
Overby, Cook & Reeder 1..... 10
Overby, Cook & Reeder 2..... 10
Burnett, Dale Oil Corp. 14..... 18
Douglass, Douglass & Lebus 1..... 10
S. B. Burnett et al-B, Gulf Prod. Co. 39..... dry
Forbes-Burnett, Gulf Prod. Co. 21..... 4
H. S. Griffin-C, Gulf Prod. Co. 21..... 156
G. Jennings-A, Gulf Prod. Co. 19..... 10
R. J. Miller, Gulf Prod. Co. 63..... 16
Brockeridge, Hammond et al 1..... dry
McCarty-A, Wayne Hammond 8..... dry
Allingham-A, Hereford Oil Co. 4..... 20
Mitchell, Jaffee et al 4..... 250
Mitchell, Jaffee et al 8..... 40
Fassett & Tuttle, Kimmel & Dillard 2.. dry
Fassett & Tuttle, Kimmel & Dillard 3.. dry
Fassett, Magnolia Pet. Co. 1..... 24
Fassett, Magnolia Pet. Co. 3..... 8
Fassett & Tuttle, Magnolia Pet. Co. 1... dry
Honaker, Magnolia Pet. Co. 14..... 12
Honaker, Magnolia Pet. Co. 72..... 6
O'Reilly, Magnolia Pet. Co. 129..... dry
Pratt-A, Magnolia Pet. Co. 18..... dry
Ramming-A, Magnolia Pet. Co. 22..... 17
Edgerly-A, George Pace 6..... dry
Riley-Griffin, Panhandle Oil & Ref. Co. 1..... 210
Douglas, W. A. Patterson 2..... 15
Douglas, W. A. Patterson 3..... 12
Chilson, Perkins, Cullum & Stump 6.... 20
Chilson, Perkins, Cullum & Stump 7.... 65
Ramming, Ramming et al 1..... 10
Allen, Ray Art & Consolidated Oil Co. 1. dry
Nance, Ryan Pet. Co. 83..... 4
Nance, Ryan Pet. Corp. 84..... 75
Nance, Ryan Pet. Corp. 85..... 25
Nance, Ryan Pet. Corp. 86..... 6
Barwise, Sessums et al 1..... dry
Chilson, Simms Oil Co. 1..... 175
Chilson, Simms Oil Co. 2..... 112
Chilson, Simms Oil Co. 3..... 100
Chilson, Simms Oil Co. 4..... 35
Ramming, Skelly Oil Co. 7..... 24
Ramming, Texhoma Oil & Ref. Co. 1... 1
Ward & Todd, Stidham & Thrasher 1.. 600
Waggoner, The Texas Company 307.... 30
Waggoner, The Texas Co. 313..... 120
Burnett-E, Texhoma Oil & Ref. Co. 11.. 30
Burnett-O, Texhoma Oil & Ref. Co. 1... 100
Burnside, Texhoma Oil & Ref. Co. 1... 3
Chilson-A, Texhoma Oil & Ref. Co. 1... 12
Weibner, Texhoma Oil & Ref. Co. 1.... 22
Weibener, Texhoma Oil & Ref. Co. 2... 2
Burnett, Trinity Prod. Co. 18..... dry
Mitchell-B, White Bros. 4..... dry
Logan et al, W. C. Young 1..... dry

Wells completed 68
Production 5,394
Dry 16
Gas 0
Gas production 0

WILBARGER COUNTY

Stephens-A, Barkley & Meadows 14.... 25
Stephens, Empire Gas & Fuel Co. 48.... 38
Stephens, Empire Gas & Fuel Co. 5..... 40
Bond-B, Humble Oil & Ref. Co. 14..... 50
Waggoner, Humble O'l & Ref. Co. 7-G 20
Waggoner-I, Humble Oil & Ref. Co. 7... 20
Waggoner-I, Humble Oil & Ref. Co. 8... 15
Waggoner-M, Humble Oil & Ref. Co. 7.. 100
Waggoner-M, Humble Oil & Ref. Co. 11. 100
Waggoner-M, Humble Oil & Ref. Co. 15. 10
Waggoner-M, Humble Oil & Ref. Co. 16. 40
Waggoner-M, Hum'le Oil & Ref. Co. 17. 40
Waggoner-O, Humble Oil & Ref. Co. 12. 35
Waggoner-P, Humble Oil & Ref. Co. 2.. 160
Piper, Magnolia Pet. Co. 51..... dry
Waggoner-A, Milham Corp. 4..... dry
Waggoner-H, Milham Oil Corp. 6..... 20
Waggoner-H, Milham O'l Corp. 8..... 25
Waggoner-H, Milham Oil Corp. 9..... 40
Waggoner-H, Milham Oil Corp. 12..... 20
Waggoner-L, Milham Oil Corp. 3..... 60
Waggoner-L, Milham Oil Corp. 16..... 140
Waggoner-E, Muchison & Fain 1..... 220
Waggoner-C, Phillips Pet Co. 1..... 125
Waggoner-D, Waggoner Ref. Co. 1..... 30
Waggoner-F, Phillips Pet. Co. 10..... 208
Waggoner-H, Phillips Pet. Co. 6..... 300
Waggoner-H, Phillips Pet. Co. 7..... 150
Waggoner-H, Phillips Pet. Co. 8..... 116
Waggoner-R, Phillips Pet. Co. 2..... 60
Waggoner-NN, Phillips Pet. Co. 10..... 55
Waggoner-NN, Phillips Pet. Co. 11..... 30
Waggoner-UU, Phillips Pet. Co..... 270
Waggoner-B, Prairie Oil & Gas Co. 1.. 16
Waggoner-B, Prairie Oil & Gas Co. 3.. 40
Zipperle, Steckton & Maxwell 1..... dry
Waggoner-D, Waggoner Ref. Co. 1..... 20
Waggoner-D, Waggoner Ref. Co. 2..... 40
Milner, Whitehear et al 1..... dry

Wells completed 39
Production 8,272
Dry 4
Gas 0
Gas production 0

YOUNG COUNTY

Keen, Atlantic Oil Prod. Co. 1..... dry
Raching-B, Atlantic Oil Prod. Co. 10.. 15
Ford, Atkinson & Sandefer 3..... 5
Brown, Barnes et al 4..... 2
Montgomery, Bloocworth & Kerbow 1.. dry
Williams, Bridwell & Mayfield 4..... 5
Williams, Bridwell & Mayfield 6..... 10
Williams, Bridwell & Mayfield 7..... 18
Williams, Bridwell & Mayfield 8..... dry
Raching, Chenault & Lea 8..... dry
Fee, J. W. Collier 5..... 25
Morrison Co., Cones & Hotchkiss 1.... 100
Logan, Evans et al 4..... dry
Jones, Godley O'l Co. 1..... dry
Ferguson, Jeffers & Jeffers 1..... dry
McCraghren, Long et al 5..... dry
Snyder, McElreath, Suggett & Phillips 4 dry
Prideaux, McMullen et al 2..... dry
Prideaux, McMullen et al 3..... dry
Prideaux, McMullen et al 4..... dry
Benson, Madden & Hunt 7..... 140
Benson, Madden & Hunt 8..... 20
Benson, Madden & Hunt 9..... 25
Campbell-G, Murchison & Fain 1..... dry
Boozer, Nance & Lucas 2..... 50
Dunnagan, Navarro Oil Co. 2..... dry
Mathews, Panhandle Oil & Ref. Co. 1.. 15
Prideaux, Panhandle Oil & Ref. Co. 2... dry
Burgess, Pitzer & West 5..... dry
Keller-C, Pitzer & West 9..... 20
Mathews, Reed et al 1..... 20
McClatchy, Roamer Oil Co. & Republic Prod. Co. 2..... dry
Stewart, Roberts Oil Co. & Carter & Ruff 5..... 108
Stewart, Roberts O'l Co. & Carter & Ruff 6..... 35
Stewart, Roberts Oil Co. & Carter & Ruff 7..... dry
Stewart, Roberts Oil Co. & Carter & Ruff 8..... 35
Gregg, Sams Cosden & Consolidated 4.. dry
Routon, Sun Oil Co. 3..... 10
Beardon, The Texas Company 18..... 130
Mathews, The Texas Company 1..... dry
Prideaux, The Texas Company 1..... 120
Prideaux, The Texas Company 2..... dry
Stewart, The Texas Company 3..... 17
Benson-A, Tidal et al 17..... dry
Benson-A, Tidal et al 18..... 15
Benson-A, Tidal et al 19..... 20
Benson-A, Tidal et al 20..... dry
Benson, Tidal Oil Co. et al 2..... 32
Benson-A, Tidal Oil Co. et al 12..... dry
Benson-A, Tidal O'l Co. et al 13..... 27
Benson-A, Tidal Oil Co. et al 14..... 22
Benson-A, Tidal Oil Co. et al 15..... 25
Benson-A, Tidal Oil Co. et al 16..... 40
Hunt, Texas University Oil Co. 1..... dry
Manley, Wentz Oil Co. 1..... dry
Stewart, Wo-Mac Oil Co. 6..... dry
Stewart, Wo-Mac Oil Co. 7..... 10
Benson, Wichita Prod. Co. 9..... 10

Wells completed 58
Production 1,136
Dry 27

WEST TEXAS
CRANE COUNTY
Rigs

Crier-McElroy, Gulf Prod. Co. 4.
State-Lasseter, Magnolia Pet. Co. 1.
Collett, Prairie Oil & Gas Co. 1.
King, The Texas Company 12.
University, Magnolia Pet. Co. 3.

Wells Drilling

Cowden, Duffy Bros. et al 1.
State-Lasseter, Gulf Prod. Co. 1.
Crier-McElroy, Gulf Prod. Co. 3.
J. T. McElroy, Gulf Prod. Co. 2.
O'Keefe, Magnolia Pet. Co. 2.
University, Magnolia Pet. Co. & Hardwick 1.
Cowden, Marland Oil Co. 1-A.
Mary Dawson, Marland Oil Co. 1.
Durham, Marland Oil Co. 2, 3.
Hughes, Marland Oil Co. 4-C, 2-D.
Hughes-Gibbs, Marland Oil Co. 2.
University, Prairie Oil & Gas Co. 1, 2.
Brookfield, Ben Simon et al 1.
King, Texas Co. 10, 11.
Cowden, Texas Dev. Co. 1*.
University, Tidal Oil Co. 2-B, 1-C.
University, Simms Oil Co. & Atlantic Oil Prod. Co. 1.
Rigs, 5; wells drilling, 21; wells shut down, 1; total, 27.

CROCKETT COUNTY
Rigs

Shannon, Magnolia Pet. Co. 2.
University, Young & Cromwell 1.

Wells Drilling

Harris Bros. Cranfill Bros. Oil Co. 1.
Couch, Cumberland Oil & Gas Co. 1*.
L. P. Powell-D, Gulf Prod. Co. 1.
Powell, Humble Oil & Ref. Co. 1-B.
Powell, J. H. Hughes Dev. Co. 2-B, 2-A. 3
Powell, Republic Prod. Co. 1.
University, William Schaffer et al 1.
Shannon, Ben Simon et al 1.
University, H. F. Wilcox Oil & Gas Co. 1.
Shannon, Younk & Cromwell 1.
Rigs, 2; wells drilling, 11; wells shut down, 1; total, 14.

MITCHELL COUNTY
Rigs

Mary Foster, Magnolia Pet. Co. 3, 4.
Griffin, Morrison & Thompson 1.

Wells Drilling

McKenzie, B. H. Cogdell 1*.
F. Adams, Magnolia Pet. Co. 2.
C. M. Adams, Magnolia Pet. Co. 6.
Mary Foster, Magnolia Pet. Co. 2.
G. W. Womack, Magnolia Pet. Co. 1.
Ellwood, Mid-Kansas Oil & Gas Co. 2.
C. P. Conoway, Owen & Sloan 1*.
Hardee, Teas & Stibers 1.
C. M. Adams, Lse. 2, California Co. 4.
Petifils, Lse. 1, California Co. 2, 3.
Womack, California Co. 6, 7.
E. Morrison, Lse. 2, California Co.
J. J. Ford, F. P. Zoch et al 1.
Rigs, 3; wells drilling, 13; wells shut down, 2; total, 18.

REAGAN COUNTY
Rigs

University, Hiawatha Oil Co. 1.
University, Gr. 1, Texon Oil & Land Co. 64, 65, 66, 67, 68, 69, 8-A, 9-A.
University, Gr. 2, Texon Oil & Land Co. 6.

Wells Drilling

University, Big Lake Oil Co. 57, 72, 80, 82, 88, 89, 90, 91, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106.
University, Camp et al 1.
Sawyer Cattle Co., Marland Oil Co. & Pickrell 1.
Sawyer Cattle Co., Moody Oil Corp. 1.
Boyd, Roxana Pet. Corp. 1.
University, The California Co. 3.
University, Gr. 1, Texon Oil & Land Co. 31, 40, 54, 55, 56, 57, 58, 59, 60, 61, 62, 62 7-A, 10-A.
University Gr. 2, Texon Oil & Land Co. 5.
Rigs, 10; wells drilling, 42; wells shut down, 1; total, 53.

UPTON COUNTY
Rigs

Sherk, Atlantic Oil Prod. Co. 1.
Burleson, Dixie Oil Co. 11.
Hughes, Dixie Oil Co. 9, 10.
Giddings, Hults et al 1.
Emma Wooley, Independent Oil & Gas Co. 5, 6, 7, 8.
Union Land Co., Johnson & McCamey and Union Land Co. 1.
M. L. Baker, McMan Oil & Gas Co. 1.
Sanger, Marland Oil Co. 16, 17, 18, 19.
Reese, Marland Oil Co. 1.
Shirley, Marland Oil Co. 1.
Estep, Roxana Pet. Corp. 4, 5.
Sherk, Texon Oil & Land Co. 1.

Wells Drilling

Ed. S. Hughes, Amerada Pet. Corp. 1.
Burleson, Dixie Oil Co. 8, 9, 10.
Hughes, Dixie Oil Co. 8.
Sanger Bros., Gulf Prod. Co. 1.
Sherk-E, Gulf Prod. Co. 1.
Burleson, Humble Oil & Ref. Co. 5.
Taylor, Independent Oil & Gas Co. 3, 5, 7, 8*, 9, 10.
Burleson, Independent Oil & Gas Co. 3, 4.
Emma Wooley, Independent Oil & Gas Co. 4.
Rankin, Kirkwood et al 1.
Estep, Marland Oil Co. 1, 2, 3, 4, 6, 7, 8, 9.
Burleson, Marland Oil Co. 3, 32, 34.
Gibbs, Marland Oil Co. 1.
Powell, Marland Oil Co. 1.
Halff, Marland Oil Co. & Texon Oil & Land Co. 1.
Hughes, Roxana Pet. Corp. 2, 3, 4.
Estep, Roxana Pet. Corp. 2, 3.
Bull, Sartin Bros. & Davis 1*.
Jones, Skelly Oil Co. 1*.
King, The Texas Company 5.
Milton Sherk, Texas Pacific Coal & Oil Co. 3, 4.
Rigs, 20; wells drilling, 40; well shut down, 3; total, 63.

MISCELLANEOUS WEST TEXAS
ANDREWS COUNTY
Rigs

Cowden, Carter & Zweifel 1.

BREWSTER COUNTY
Wells Drilling

Skinner, Rosenborough & Skinner 1.

COCHRAN COUNTY
Wells Drilling

G. C. Landon, J. C. Whicker 1.

COKE COUNTY
Wells Drilling

E. C. Rawlings, Lipan Oil Co. 1.

CONCHO COUNTY
Wells Drilling
Hartgrove, Exploration Co. 1*.
W. S. See, Culbertson Bros. 1.
Hartgrove, Gene Mays et al 1*.
CULBERTSON COUNTY
Rigs
Radford, J. H. Gardner et al 1.
Wells Drilling
Derrick, Plymouth Oil Co. (Big Lake) 1.
Kloh & Rumsey, Pure Oil Co. 1.
ECTOR COUNTY
Wells Drilling
G. W. Connell, A. S. Cosden et al 1-A.
Kloh & Rumsey, The Exploration Co. 1.
J. D. Slator, The Exploration Co. 1.
E. P. Cowden, Llano Oil Co. 1.
Henderson, Sid Richardson (Taliaferro) 1*.
FISHER COUNTY
Rigs
Weler, Baldridge, Dillard & Clark 1.
Wells Drilling
W. F. Martin, Ideal Oil Co. 1.
J. L. Marberry, R. W. Hainey et al 1*.
GLASSCOCK COUNTY
Wells Drilling
Calder, Mascho & Marland Oil Co. 1*.
L. S. Bell, Plateau Oil Co. 1.
HOCKLEY COUNTY
Wells Drilling
Ellwood, Ricker & Dodson 1.
HOWARD COUNTY
Rigs
Otis Chalk, Gulf Prod. Co. 1.
Wells Drilling
Douthit, Humble Oil & Ref. Co. 1.
Otis Chalk, Lockhart & Co. 1-A.
Dora Roberts, Lockhart & Co. 1.
Scott, Lockhart & Co. 1.
Mary Chalk, Magnolia Pet. Co. 1.
Chalk, Magnolia Pet. Co. 3, 4.
Otis Chalk, Marland Oil Co. 4*.
Clay, Reeves & Apperson 1*.
JONES COUNTY
Rigs
Mason, Marland Oil Co. 1, 2.
Manly, Muse Robertson 1.
Winter, Phillips Pet. Co. 2.
Wells Drilling
Howe, Atlantic Oil Prod. Co. et al 1.
Mrs. J. V. Wright, Gibson & Johnson 1*.
S. W. King, Gillette & Hickey 1.
M. E. Young, Gillette & Hickey 1.
J. Sears, Hurley Oil Co. et al 1.
S. R. Cox, Marland Oil Co. 1.
Thornton, Midwest Exploration Co. 1.
Culbertson, Victor H. Martin 1.
Walling, Phillips Pet. Co. 1.
Barnsdow, Shaw & Rathke et al 1*.
King, Leith, Taliaferro 1.
Herndon, J. C. Yancey et al 1*.
Rowell, J. C. Yancey et al 1*.
Reeves, Zeigler et al 1.
KENT COUNTY
Wells Drilling
Barron, The Texas Company 1*.
KIMBLE COUNTY
Wells Drilling
Harrison, Dixie Oil Co. 1*.
LAMB COUNTY
Wells Drilling
Yellowhouse, E. C. Mars et al 1.
LOVING COUNTY
Wells Drilling
Allen, Lockhart & Co. 1.
LYNN COUNTY
Wells Drilling
C. O. Edwards, Hart Oil Corp. 1*.
MENARD COUNTY
Wells Drilling
White, J. R. Lewis et al 1*.
REEVES COUNTY
Rigs
Caldwell, Deep Rock Oil Co. 1.
Wells Drilling
Abram, Schooler, Slack et al 1*.
State land, Grisham & Hunter 1.
Biggs, World Oil Co. 1.
RUNNELS COUNTY
Wells Drilling
Fowler, Red Bank Oil Co. 1.
R. M. McMillan, Frank Yates, 1.
Bruce, F. P. Zoch et al 1.
SCHLEICHER COUNTY
Wells Drilling
M. A. & W. T. Whitten, Beaver & Leath et al 1*.
Joel Meyer, Cope & Dalton 1.
SCURRY COUNTY
Wells Drilling
T. C. Stinson, Northwest Co. 1.
STERLING COUNTY
Wells Drilling
Davis, California Co. 1.
E. W. Douthett, Co-operative Leave & Dev. Co. 1-A*.
C. A. Boone, Exploration Co. 1*.
Clark, J. W. Gilliam 1*.
TAYLOR COUNTY
Rigs
Gillespie, Sanger Oil & Ref. Co. 1.
Wells Drilling
Fee, City of Abilene 1.
R. E. Anderson, Sanger Oil & Ref. Co. 1*, 2.
Cox, Sanger Oil & Ref. Co. 1.
TERRELL COUNTY
Wells Drilling
Scott, Sun Oil Co. 1.
Robertson, E. T. Williams et al 1*.
TERRY COUNTY
Wells Drilling
Townsfield, Kingsland Oil & Potash 1*.
TOM GREEN COUNTY
Wells Drilling
Llano County School land, M. D. Bryant et al 1.
Sorrell, Texon Oil & Land & Marland Oil Co. 1.
Pulliam, World Oil Co. 1.
VAL VERDE COUNTY
Wells Drilling
Moore Est., A. Blume et al 1.
Holman, Curso Williams 1.
Sellars, Douglas Oil Co. 1.
Russell, East Del Rio Oil Co. 1*.
Sellers, Hiawatha Oil Co. 1*.
Whitehead, Independent Operators 1.
W. S. Stevenson, Transcontinental Oil Co. 1.
WINKLER COUNTY
Wells Drilling
Cowden Cattle, R. S. Matthews et al 1.
John Sealy, F. P. Zoch et al 1.
Amburgey, L. D. Ladd, Hill et al 1.
Hendricks, Westbrook et al 1*.
Rigs, 11; wells drilling, 45; wells shut down, 35; total, 91.

NORTH TEXAS
ARCHER COUNTY
Rigs
Allen, Atlantic Oil Prod. Co. 1.
Turbeville, L. T. Burns 3.
Roach, Gulf Prod. Co. 3.
Turbeville-C, The Texas Co. 15, 16.
Oldham, Atlantic Oil Prod. Co. 8.
Hudson, Jesse Lincoln 1.
Fox, Marland Oil & Kentucky Oil Co. 1.
Lowe, Mid-Kansas Oil & Gas Co. 3.
Abercrombie & Taylor, Roxana Pet. Corp. 8.
Wells Drilling
Turbeville, American Ref. Co. et al 7, 8.
Wilson, Reese Carter 1.
Kell Kempner-C, Gulf Prod. Co. 4.
Turbeville, Gulf Prod. Co. 1.
S. H. Melngin, Gulf Prod. Co. 2.
Rasmussen, Hunter et al 1.
White, Jetter & Anderson 1*.
M. Rutty-B, Magnolia Pet. Co. 1.
Turbeville, Marland Oil Co. 8, 9.
Perkins et al, Marland Oil Co. Bass & Dillard 2.
Wilson, O'Neil et al 1.
Turbeville, Pet. Prod. Co. 4, 5, 6.
Helm, Ray & Massie 1.
Parkey, Riner & Bailey 1.
Turbeville, Shappell Oil Co. (formerly Plains) 4, 5.
Turbeville-A, Simms Oil Co. 11, 12.
Turbeville-A, Simms Oil Co. & Burns 2.
Turbeville, Simms Oil Co. & Consolidated Oil Co. 3.
Turbeville-B, The Texas Co. 2.
Turbeville-C, The Texas Co. 12, 13, 14.
Turbeville-D, The Texas Co. & Kniger 1.
Parrish, Texhoma Oil & Ref. Co. & Shaldon 1.
Turbeville, Tidal Oil Co. 2.
Netherton, Traham et al 1.
Moss, W. C. Young 1*.
Hamilton, Texhoma Oil & Ref. Co. 18.
Kemp & Kempner, Texhoma Oil & Ref. Co. 4.
Kemp & Kempner, Texhoma Oil & Ref. Co. & Maer 3.
Kemp & Kempner, Texhoma Oil & Ref. Co. & Staniforth 10.
Ferguson, W. C. Young 1.
Farmer, Atlantic Oil Prod. Co. & Rayzor 1.
Abercrombie & Taylor-B, Bridwell & Heydrick 2.
Phillips, Continental Oil and Camp Oil & Gas Co. 2.
Tarr, Elliott et al 1.
Crawford, Golding & Cochran 1.
Smith, Golding & Cochran 1.
Hamilton, Humble Oil & Ref. Co. 19.
Andrews-E, Jeffers & Jeffers 1.
Gorvey, A. W. Johnston 1.
Turbeville, Kentucky Oil & Simms Oil Co. 1.
Graham, Magnolia Pet. Co. 1.
Hudson, Magnolia Pet. Co. 5.
Baggett, Mid-Tex Oil Co. 1*.
Abercrombie & Taylor, Moore & McVelia 1.
Hudson, Pandem Oil Corp. 6.
Hull, Rayzor et al 1.
Abercrombie & Taylor, Roxana Pet. Corp. 7.
Price Bk., Bk. 6, Schermerhorn Oil Co. 2.
Turbeville, Simms Oil Co. & Burns 5.
Ray, Wanderer Oil & Continental Oil Co. 1.
Rigs, 10; wells drilling, 55; well shut down, 3; total, 68.

BROWN COUNTY
Rigs
Henson, Gillespie 13.
Kilgore, Bros. Huffman 7.
Henslee, Louisiana Oil & Ref. Co. 8.
Josie Wooldridge, McLester Oil Co. 11.
Brison, Moore et al 1.
Stone, Wilson et al 2.
Lot 9, Evans 1.
Wells Drilling
J. H. Fry, Amerada Pet. Corp. 3.
M. E. Fry, Amerada Pet. Corp. 3.
Dunn, Bedichek 1*.
Eads, Bowers 2.
Stout, Bradstreet et al 2.
Weedon, Brown 1*.
Kennedy, Carter 1.
Armstrong, Clark & Kimbell 1.
Arledge, J. S. Cosden 2.
East Westerman, J. S. Cosden 3.
Elmo Williams, J. S. Cosden 6.
Mrs. T. S. Williams, J. S. Cosden 1-A.
Pickett Jr., Curry & Moore 4.
Williams, Curry & Moore 2.
Wooldridge, Curry & Moore 8.
Killion, Eastland Oil Co. 1.
Green, Empire Gas & Fuel Co. 1.
Newton, Gillespie 12.
Perry, Gilman et al 1.
Moore, Gilman & McMurray 9*.
Teston, Gilman & McMurray 12.
Lowe, Henshaw et al 2, 3.
Prater, H-W Drilling Co. 9.
Runge, Hoffer Oil Corp. 1*.
Kuteman, Huber et al 1.
Kilgore Bros., Huffman 2*.
Keller, J. K. Hughes Dev. Co. 3.
White Est., J. K. Hughes Dev. Co. 1.
Foster, Humble Oil & Ref. Co. 5.
J. H. Fry, Humble Oil & Ref. Co. 1.
M. E. Fry, Humble Oil & Ref. Co. 5.
Harrell, Humble Oil & Ref. Co. 1.
Hodnett, Humble Oil & Ref. Co. 8.
E. P. & W. H. Kilgore, Humble Oil & Ref. Co. 8-D.
Wooldridge, Humble Oil & Ref. Co. 6.
Low, Hynes & Price 1.
Graham Est., Infield Pet. Co. 2.
Graham Est., Jarvis et al 1*.
Taber, Joines & Neiswanger 1.
Fry, William Lester 6, 7, 8, 9, 10.
Conway, Lloyd et al 1*.
Henslee, Louisiana Oil & Ref. Co. 7.
Josie Wooldridge, McLester Oil Co. 10.
W. M. Wooldridge, McLester Oil Co. 14, 15.
M. E. Fry, Magnolia Pet. Co. 3, 5.
Suttles, Mid-West Exploration Co. 16.
Turner, Maer & Staniforth 1.
Keller, Mitcham 1*.
Perry, Mitcham 1.
Brannum, Moore et al 1.
Westerman, Pandem Oil Corp. 6.
Wooldridge, Prairie Oil & Gas Co. 9.
Andrews, Price & Daniels 1.
Turnet, Price & Daniels 1.
Jones, Ratblott 1*.
Stout, Ray Oil Co. 2.
Suttles, Root et al 13.
Broocke, Superior Oil Co. et al 1.
Hickman, The Texas Co. 3, 5, 6.
Johnson, The Texas Co. 2.
Pugh, The Texas Co. 1.
Williams, The Texas Co. 1.
Lee, Thomas & Reynolds 1.
Sudd, Thomas & Reynolds 1.
Carson, Vacuum Oil Co. 1.
Shore, Wentz Oil Corp. 2.
Newton, West & H-Y Oil Corp. 19.
Wooldridge, Williamson et al 3, 4.
Stove, Wilson et al 3.
McDaniel, Campbell & Rosenfield 1*.
Brown, Christmas 1.
Taylor, Fain et al 1*.
Mathews, Hamon et al 1.
Taber, Holliday et al 1*.
Denman, Hynes et al 1*.
Thigpen, Moore et al 1.
Warnock, Morris 1*.
Sneed, Nelson 1*.
Oden, Russell et al 1.
Mattock, Savings & Scoggins 1*.
Cleveland, Schoonmacker 1*.
Hall, Shadbolt & Creighton 1.
Rigs, 7; wells drilling, 75; wells shut down, 17; total, 99.

CALLAHAN COUNTY
Rigs
Seale Est., Mississippi Valley Oil Co. 1.
Wells Drilling
Windham, Adams et al 1.
Henderson, Cranfill & Reynolds 7.
Ross, Dixie Drilling Co. 1.
Johnson, Empire Gas & Fuel Co. 1.
Cunningham, Florence Oil Co. 1.
La Mar, Florence Oil Co. 3.
Boydston, Gibson & Johnson 1*.
Finley, Gibson & Johnson 1.
Hutchinson, Gibson & Johnson 1.
Irvin, Humble Oil & Ref. Co. 1.
Irvin, Ingleright et al 1.
Moore, Mission Drilling Co. 1*.
Baum, Mook-Texas Oil Co. 1.
Walker & Caldwell, Moore et al 1-A, 1-B.
Hays, Oklavania Oil Co. 1.
Rushing Est., Pardee et al 1.
Baum, Prairie Oil & Gas Co. 3.
Cunningham, Prairie Oil & Gas Co. 8.
Derrington, Prairie Oil & Gas Co. 3.
Young, Roeser & Pendleton 1.
Ferguson, Sanger Oil & Ref. Co. 1.
Dancy, Sinclair Oil & Gas Co. 1.
McDonough, T. B. Slick 4.
Alvoid, White Eagle Oil & Ref. Co. 1*.
Rigs, 1; well drilling, 22; wells shut down, 3; total, 26.

COLEMAN COUNTY
Rigs
Dibrell, Zweifel and others 1.
Wells Drilling
Dibrell, Altitude Oil Co. 1.
Teagle, Bradstreet et al 1.
Stozier, Broderick & Calvert 1.
Dibrell, Burke-Greis Oil Co. 5.
Gibson, Cranfill & Reynolds 1.
Crawford, English et al 1*.
Harris, English 1.
Overall, Flannigan 1.
Morris, Magnolia Pet. Co. 17.
Andrews, Moore & Fuhrman 1.
O'Hair, Root et al 1.
Sealy & Smith, Texon Oil & Land Co. 1.
Smith, Whitmire 1*.
Hays, Gray 1.
Pfluger, Jewell & Sill 1*.
Russell, Logan et al 1*.
Brown, Monroe Prod. Co.
Harris, Monroe Prod. Co. 1.
Overall, Monroe Prod. Co. 2.
Wallace Est., Morris 1*.
Burk, Morrison & Est. John 1.
Johnson, Newby et al 1*.
Wills, Van Eman et al 1*.
Taylor, Westerman & Daube 1.
Witkowski, World Oil Co. 1*.
Rigs, 1; wells drilling, 17; wells shut down, 8; total, 26.

EASTLAND COUNTY
Wells Drilling
Cunningham, Applegate et al 1.
Lyeria, Arkansas Fuel Co. 4.
Beard, Arab Gasoline Co. 1.
Motes, Bateman & Campbell 1.
Higgins, Evans et al 1*;
Hankins, Gates Oil Co. 5*.
Duffer, Gholson 1.
Allen-Evans, Gulf Prod. Co. 1.
Earnest, Lightfoot et al 1*.
Pritchard, Moore et al 1.
Robinson, Parsons et al 1.
Fox, Parton & Myer 1*.
Brasher, Rown & Morrissey 1.
Grove, Adams et al 2*.
Connellee, Amyx et al 3.
Rose, Arnold et al 1*.
Hill, Barkley & Crotty 1.
Roach, Brownfield & Morrow 1.
Ramsower, Continental Oil & Gas Co. 1.
Kemp, Corzelius Bros. 1.
Cade et al, Goldrick & Mims 1.
Dill, Humble Oil & Ref. Co. 1.
Martin, Humble Oil & Ref. Co. 1.
Fee, Lewis et al 1.
Johnson, McBride 1*.
Brown, McLester Oil Co. 1.
Thomas, Magnolia Pet. Corp. 1.
Continental State Bank, Murchison & Fain Oil Co. 1*.
White, Pumbaugh & Thompson 1*.
Allen, Shasta Oil Co. 1*.
Lewis, Texas Development Co. 2.
Leveridge, Texas Fidelity Oil Corp. 1.
Walker, Texas Fidelity Oil Corp. 1.
McAlister, Thomas & Reynolds 1.
Cove, World Oil Corp. 1.
Rigs, 0; wells drilling, 24; wells shut down, 11; total, 35.

JACK COUNTY
Rigs
Preston-C, Buttram Pet. Co. 4, 5.
Wells Drilling
Roach, Brentmoor Inc. Co. 1.
C. K. Cullers, Buttram Pet. Co. 3.
Sam Cullers, Buttram Pet. Co. 1.
Gaskin, Buttram Pet. Co. 1.
Preston-C, Buttram Pet. Co. 2*.
Stewart, Clark et al 1.
Bailey, Conklin et al 1.
Gillespie, Cooper & Goldsmith 1.
Thomason, Dingee et al 1*.
Gray, Rochelle et al 1.
Cullers, Seaboard Oil & Gas Co. 3.
Shults, Ferguson et al 1*.
Rigs, 2; wells drilling, 8; wells shut down, 4; total, 14.

MONTAGUE COUNTY
Rigs
Howard et al, Barnsdall Oil Corp. 1.
Howard et al-B, F. H. E. Oil Co. 5.
Rowland-B, Texhoma Oil & Ref. Co. 5.
Maddox, Harris & Simons 5.
Rowland-C, Texhoma Oil & Ref. Co. 2.
J. W. Rowland, Gulf Prod. Co. 2.
Wells Drilling
Yarborough Est., Alexander & Lyles, Inc. 1.
Howard, Allday Oil Corp. 1.
Rolls et al, Cato Oil Co. 3.
Maddox, Farlan Oil Co. 1.
Flint et al, Farmers Creek Oil & Gas Co. 1.
Howard et al-A, F. H. E. Oil Co. 7.
Howard et al-B, F. H. E. Oil Co. 4.
N. J. Howard et al, Gulf Prod. Co. 5.
Maddox, Humble O. & R. Co. 1.
Rowland et al, Humble O. & R. Co.
McCracken, McElreath & Suggett 1.
Cunningham, T. A. Norwood 1.
Maddox, Olean Pet. Co. 8.
Salmon et al, J. J. Perkins 1.
Jones B-1, Pure Oil Co. 1.
Keck, Pure Oil Co. 1*.
Maddox-C, Pure Oil Co. 5.
Maddox-D, Pure Oil Co. 2.
Oldham-A, Pure Oil Co. 3.
Rowland et al-B, Pure Oil Co. 3, 4.
Gist-A, The Texas Co. 25.
Gist-B, The Texas Co. 3.
Maddox-A, The Texas Co. 2*, 3.
Maddox-B, The Texas Co. 2.
Maddox-D, The Texas Co. 1.
Oldham et al, The Texas Co. 28, 32.
Salmon et al-B, The Texas Co. 2.
Salmon et al-C, The Texas Co. 1.
Bouldin-A, Texhoma Oil & Ref. Co. 1, 7.
Hinton, Texhoma Oil & Ref. Co. 2.
Howard et al, Texhoma Oil & Ref. Co. 13
Howard et al-A, Texhoma Oil & Ref. Co. 12.
Howard et al-B, Texhoma Oil & Ref. Co. 1.
Loy et al, Texhoma Oil & Ref. Co. 2.
Rowland-A, Texhoma Oil & Ref. Co. 11.
Rowland-B, Texhoma Oil & Ref. Co. 4
Salmon et al, Texhoma Oil & Ref. Co. 3.
Williams, Dickey et al 1.
Wilson, Green et al 1.
Boedecker, Grigsby Oil Co. 1*.
Rigs, 6; wells drilling, 42; wells shut down, 3; total, 51.

SHACKELFORD COUNTY
Rigs
Moberly, Albany Oil Co. 10.
Cook, Amerada Pet. Corp. 2.
Reynolds, Hope Pet. Co. 13.
Flippen, Jackson et al 1-B.
Fukusshina, Milham Corp. 1.
Manley, Ramsey-Maxey Oil Co. 1.
Cook, Roeser & Pendleton & Marland Oil Co. 4-A-60.
Scott, Section 174, Roeser & Pendleton 1.
Wells Drilling
Davis, Amerada Pet. Corp. 2*.
Nail, Carter Dev. Co. 4, 5.
Proctor, Carter Dev. Co. 3*.
Huskey, Carter et al 1*.
Goodwin, Chronle 1.
Poindexter, Empire Gas & Fuel Co. 1.
Erharat, Gallagher & Rowland 1*.
Ackers, Gibson & Johnson 1.
Owens, Gilliam & Logan 1.
J. S. Willis et al-A, Gulf Prod. Co. 1.
Poindexter, Sec. 46, Gwinnup et al 1.
Poindexter, Sec. 47, Gwinnup et al 1.
Graham, Hallmark Oil Co. 1.
Matthews, Harris 1.
Reynolds, Heck et al 4.
Davis, Hope Pet. Co. 3.
Kendrick, Hughes et al 1.
Cook, Humble Oil & Ref. Co. 13, 14, 15.
King, Humble Oil & Ref. Co. 2.
Moberly, Hyde & James 1.
McLemore, Lee et al 1.
Snugg, Logan et al 1.
Moberly, Magnolia Pet. Co. 2.
Cannon, Melton Oil Co. 1*.
Goodwin, Mid-Kansas Oil & Gas Co. 1.
Moore, Milham Corp. 1.
Sedwick, Milham Corp. 2, 3, 5.
Simpson, Milham Corp. 2.
Nail, Don Moore 1.
Snyder, Peeples 1*.
Brooks, Phillips Pet. Co. 3.
Cook, Roeser & Pendleton & Marland Oil Co. 2-A-60, 3-A-60, 5-A-60, 6-A-60, A-29-A-84, 33-A-84, 35-A-84, 36-A-84.
Matthews, Republic Prod. Co. 1.
Cook, Roeser & Pendleton 5-B-60, 12-B-60, 13-B-60, 5-B-61.
King, Simmons 1.
Nail, Sinclair Oil & Gas Co. 7, 8.
Matthews, Skelly Oil Co. 2.
Vickers, Smith et al 1.
Dyer, Southern Pet. Exploration Co. 2.
Poindexter, Spoonts et al 1*.
Moberly, Sec. 59, Tannehill Oil Co. 2, 3.
Flippen, Tidal Oil Co. 1*.
Goodwin, Turman & Maxwell 1.
Proctor, Wentz Oil Corp. 2, 3.
Matthews, York & Delaney 1.
Austin, Zeigler & Fenteiss 1*.
Rigs, 8; wells drilling, 55; wells shut down, 9; total, 72.

STEPHENS COUNTY
Rigs
Magers, Hart Oil Corp. 1.
Chesley, Meredith & Thomas 1.
Thorp, Milham Corp. 1.
Wells Drilling
William Spicer, Gulf Prod. Co. 2.
Curry, Hanlon Gasoline Co. 2*.
Hamil, Humble Oil & Ref. Co. 1.
Coody, Kenridge Oil Co. 1.
S. H. Hill, Acct. 1, Mid-Kansas Oil & Gas Co. 10, 11.
Kirkland, Mid-Kansas Oil & Gas Co. 4.
Vick, Mid-Tex Oil Co. 1*.
Lydon, Prairie Oil & Gas Co. 5.
Knox, Republic Prod. Co. 7*.
Allen, Scott & Bateman 1.
Martin, Texas Consol Oil Co. 8.
Williams, Atkinson & Sandefer 2.
Bradford, Barkley & Conway 1.
Pratt, Barkley & Conway 1.
Compton, Bateman & Campbell 1*.
Hodges, Chestnut & Smith 2*.
Goforth, Corzelius Bros et al 1*.
Long, Hucony Gas Co. 1*.
McPherson, Hucony Gas Co. 1.
Cockrell, Humble Oil & Ref. Co. 1.
Langston, Lyman et al 1.
Riddel et al, Mook et al 1.
Fambrough, Morton et al 1.
Elder, Pender Prod. Co. 2*.
Hart, Pender Prod. Co. 2*.
Coody, Simmons 1.
Sikes, State Oil Corp. 4*.
Rochell, Sun Oil Co. 4-A.
Swenson, Swensondale Oil Corp. 33.
Bradford, Texas Pacific Coal & Oil Co. 3.
Hefley, Thompson 1.
Webb, Urban et al 1.
Rigs, 3; wells drilling, 22; well shut down, 11; total, 36.

THROCKMORTON COUNTY
Wells Drilling
Buchanan, Associated Pet. Co. 1*.
J. H. Lee, Gulf Prod. Co. 1.
Ellis, Humble Oil & Ref. Co. 1.
Harris, Humble Oil & Ref. Co. 1*.
Stubblefield, Humble Oil & Ref. Co. 2, 3.
Elliott, Red Bank Oil Co. 1, 2.
V. Parrott, Red Bank Oil Co. 2, 3, 5*.
Elliott, Reiter-Foster Oil Corp. 2*.
Graham, Reiter-Foster Oil Corp. 1.
Lee, Reiter-Foster Oil Corp. 1.
Parrott, Reiter- Foster Oil Corp. 1, 2*.
Ellis, Texas Pacific Coal & Oil Co. 1.
Kelly, Associated Pet. Co. 3.
Davis, Cranfill & Reynolds 1.

Thomas, Cranfill & Reynolds 1.
Mathews, Hoffer Oil Corp. 1.
Mathews, Humble Oil & Ref. Co. 1.
Richard, Humble Oil & Ref. Co. 1.
McKelchen, McGuire et al 1.
Reynolds Cattle Co., Texon Oil & Land Co. & Mariand Oil Co. 1.
Reynolds, Wildman Pet. Co. 1.
Rigs, 0; wells drilling, 23; well shut down, 5; total, 27.

WICHITA COUNTY
Rigs

Ancell, J. B. Barnes 1.
King, W. K. Campbell 1.
Burnett et al, F. P. Cullum 1.
Heiserman, Magnolia Pet. Co. 8.
R. Ranzoning, Magnolia Pet. Co. 1.
Riley-Griffin, Panhandle Oil & Ref. Co. 2.
Mitchell, Ross et al 15.
Ward & Todd, J. G. Rowe 1.
Nance, Ryan Pet. Corp. 88.
Mitchell-B, White Bros. 5.

Wells Drilling

Michna, Barney Cockburn 2.
Willis, Hotham & Cutcher 1.
Cook, Magnolia Pet. Co. 12.
Beach, Magnolia Pet. Co. 42.
Viles, Magnolia Pet. Co. 19.
Proctor, Proctor Oil Co. 1.
Beach, Texhoma Oil & Ref. Co. & Magnolia Pet. Co. 1-A*.
Chilson, Simms Oil Co. 6.
Chilson-A, Texhoma Oil & Ref. Co. 2.
Nitschke et al, Wilson Drilling Co. 1.
Banta, Beasley Drilling Co. 1.
Ward & Todd, Bridwell & Heydrick 10.
Wrangler, Bridwell & Heydrick 1.
Briesdale, Clark & Campbell 1.
Herber, Clark & Campbell 1.
Ward & Todd-J, Clark & Campbell 1.
Ward & Todd, Clark et al 11.
Throckmorton, R. Cook 2.
Mangold, Craig, Wilson & Sadler 1.
Waggoner, Culbertson Co. 43*.
Burnett, Dale Oil Corp. 15, 16.
Jennings, Dale Oil Corp. 26.
Waggoner, Eureka Prod. Co. 13.
H. S. Griffin-C, Gulf Prod. Co. 3.
Kemp & Kell, Hammon et al 1.
Allingham-A, Hereford Oil Co. 5.
Hirschi, Howell & Somers 1.
Kemp & Kempner-F, Humble Oil & Ref. Co. 1.
Jennings, J. E. Jones 5*.
Fassett & Tuttle, Kimmel & Dillard 4.
Fassett, Leath et al 1.
Fassett, Magnolia Pet. Co. 2, 4.
Ramming-B, Magnolia Pet. Co. 23.
Ramming-A, Magnolia Pet. Co. 25.
B. Ramming, Magnolia Pet. Co. 2.
H. Ramming, Magnolia Pet. Co. 1.
Rio Bravo, John O'Neil 26.
Goetze, W. Prechel 1.
Bywaters, Red River Oil Co. 40*.
Foster & Allen, G. W. Ridgeway 1*.
Fee, Saunders Est. 1.
Obenhaus, C. P. Sheldon 1.
Ward & Todd, Sidham & Thrasher 2*.
Waggoner, Stump & Co. 2*.
Foster & Saunders, The Texas Co. 6.
Waggoner, The Texas Co. 308, 312, 314, 315, 316, 318.
Burnett-O, Texhoma Oil & Ref. Co. 2.
Burnett, Virginia Oil Association 26*.
Rigs, 10; wells drilling, 47* wells shut down, 8; total, 65.

WILBARGER COUNTY
Rigs

Mariott, Frazier & Hammond 1.
Waggoner-A, Phillips Pet. Co. 14.
Waggoner-Q, Phillips Pet. Co. 7.
Waggoner-T, Phillips Pet. Co. 6, 8.
Waggoner-X, Phillips Pet. Co. 1.
Waggoner-PP, Phillips Pet. Co. 3.
Waggoner-QQ, Phillips Pet. Co. 12, 12.
Guyer, Stewart et al 1.

Wells Drilling

Allison, Alford Oil Co. 1.
Stephens, Empire Gas & Fuel Co. 51.
Bond et al-B, Humble Oil & Ref. Co. 16*.
Chauncy & Gambill, Humble O. & R. Co. 1.
W. T. Waggoner-R, Gulf Prod. Co. 6.
Waggoner-H, Humble Oil & Ref. Co. 10*, 12*, 16.
Waggoner-L, Humble Oil & Ref. Co. 2*.
Waggoner-M, Humble Oil & Ref. Co. 7*.
Waggoner-N, Humble Oil & Ref. Co. 3.
Waggoner, Sec. 26, Keily et al 1.
Fee, Magnolia Pet. Co. 74.
Summer, Magnolia Pet. Co. 55.
Maggie Waggoner, Magnolia Pet. Co. 1.
Waggoner-B, Milham Corp. 6.
Waggoner-C, Milham Corp. 2.
Waggoner-H, Milham Corp. 1.
Waggoner-M, Milham Corp. 1.
Waggoner-O, Milham Corp. 1.
Fluham, Murchison & Fain 1.
Waggoner-A, Phillips Pet. Co. 1.
Waggoner-D, Phillips Pet. Co. 12, 13, 14.
Waggoner-H, Phillips Pet. Co. 9.
Waggoner-L, Phillips Pet. Co. 4, 5-A.
Waggoner-Y, Phillips Pet. Co. 1, 3, 4.
Waggoner-Z, Phillips Pet. Co. 1.
Waggoner-FF, Phillips Pet. Co. 1.
Waggoner-HH, Phillips Pet. 4, 5.
Waggoner-II, Phillips Pet. Co. 1.
Waggoner-JJ, Phillips Pet. Co. 3.
Waggoner-NN, Phillips Pet. Co. 7, 8.
Waggoner-OO, Phillips Pet. Co. 2.
Waggoner-QQ, Phillips Pet. Co. 14.
Waggoner-UU, Phillips Pet. Co. 5.
Waggoner-A, Prairie Oil & Gas Co. 4*.
Kemp et al, Quincy Oil Co. 2*.
Waggoner-D, Roxana Pet. Corp. 2.
Waggoner, C. L. Sloan 2.
Waggoner, The Texas Co. 305.
Smith, Wanderer Oil Co. 1.
Waggoner, Whitehead, Apple & Brandeberry 1*.
Woodard, Wichtex Oil Co. 1.
Rigs, 10; wells drilling, 42; wells shut down, 8; total, 60.

YOUNG COUNTY
Rigs

Rachuig-B, Atlantic Oil Prod. Co. 11.
Little et al, Magnolia Co. 10.
Logan, Roxana Pet. Corp. & Continental Oil Co. 1.
Morrison Co., Pitzer & West 1.

Wells Drilling

Campbell, Allday Oil Co. et al 1.
Stewart Canyon Oil Co. 1.
Farmer, Jones & Spoonts 1.
Benson, Madden & Hunt 11, 12, 12.
Stewart, Moran et al 1.
Calvin, O. K. Pipe Thread Machine Co. 2.
Whitehead, Pandem Oil Corp. 7.
Mathews, Panhandle Oil & Ref. Co. 1, 3*.
Mathews, Reed et al 1.
Rogers, Roberts Oil Co. 16.
Stewart, Roberts Oil Co. & Carter & Ruff 9.
Prideaux Bros. Schermerhorn Oil Co. 1.
Routon, Simms Oil Co. 4.
Benson, Tidal Oil Co. 3*.
Beardon, Wichita Prod. Co. 2.
Watson, Woods & Holbrook 2.
Eddleman Bros. Coones & Hotchkiss 1.
Griffin-B, Humphries Corp. 1.
Harfield, Jacob Oil & Gas Co. 1.
Donnell, Liner Drilling Co. 1.
Donnell, McQuain et al 1*.
Boozer, Pitzer & West 2.
McClesky, Roeser & Pendleton 1.
Donnell, Sun Oil Co. & Texas Pacific Coal & Oil Co. 4.
Moore, Transcontinental Oil Co. 1.
Rigs, 4; wells drilling, 25; wells shut down, 3; total, 32.

MISCELLANEOUS NORTH TEXAS

BAYLOR COUNTY
Wells Drilling

Young, Pandem Oil Corp. & Richards 1*.

CLAY COUNTY
Rigs

Johnson, Cove Oil & Gas Co. 1.

Wells Drilling

Sanzenbacker, O. H. Foster 1.
Inman-A, Howard Pet. Co. et al 2*.
Scaling, Atlantic City Prod. Co. 1.
Dean, H. C. Dean 1.
Sowien & Son, Ferguson et al 1*.
Wright, Western Oil Corp. et al 1*.

COLLIN COUNTY
Wells Drilling

Watkins, Verona Prod. Co. 1.

COMANCHE COUNTY
Rigs

Gardenshire, Melton Oil Corp. 1.

Wells Drilling

Campbell, Dublin Dev. Corp. 1*.
Barnes, Humphrey Bros. 1.
Miers, Kirk & Brewer 1*.
Braswell, Moore 1.
Chapman, Suddeth et al 1*.
Kirk, Texas Pacific Coal & Oil Co. 1*.
Guinn, Wolf et al 1.

COOKE COUNTY
Rigs

Dayton, Abermathy et al 1.
McCollum, Bonchil Oil Co. 1.
Montgomery, Chapman & Lanier 1.
Cox, Houston et al 1.
Hyman, Sun Oil Co. 7.

Wells Drilling

Dennis, American Ref. Co. 1.
Lester, Big Indian Oil & Gas Co. 1.
Wilson, Hoffer Oil Co. 1.
Dennis, Hooser Oil Co. 8, 9, 10.
Kidd, Hudson et al 1*.
Hyman, C. C. Lanier 8, 9.
Dangelmayer, Lynch, Stahl & Burris 3, 4.
Scofield & Leeper, Schubert Drilling Co. 1.
Houston, Simpson et al 1.
Hyman, Sun Oil Co. 6.
Kitchens, Vacuum Oil Co. & Big Indian Oil &Dev. Co. 1.
Franklin, Max Westheimer 1.
Pace, F. P. Zoch 1.

COTTLE COUNTY
Wells Drilling

A.C. Dulaney, T. J. Woodley et al 2.

DENTON COUNTY
Wells Drilling

Fortenberry, Gainesville Syndicate 1*.

DICKENS COUNTY
Wells Drilling

Pitchfork Ranch, Bowser, Mickels et al 1.
Blackwell, Moutray Oil Co. & Clancey English 1.
Jones, Moutray Oil Co. & Clancey English 1.

ERATH COUNTY
Wells Drilling

Barton, Gillett 1*.
Finch, Nelson Oil Syndicate 3*.
Smith, Welsh et al 1*.

FANNIN COUNTY
Wells Drilling

Moore, Erin Prod. Co. 1.

FOARD COUNTY
Wells Drilling

Burress, Central Oil Ints. 1*.
A. T. Miller, Gulf Prod. Co. 1.
Meusse, G. C. Wood 1.

HARDEMAN COUNTY
Wells Drilling

Wheat, Benedum & Trees 1.
Nicholson, Sigg & Winnepeg Oil Co. 1.

HASKELL COUNTY
Wells Drilling

Ballard, Kouri et al 3.
Colbert, Weart & York 1*.

KING COUNTY
Wells Drilling

F. Patton, Hoffer Oil Co. 1*.

MCCULLOCH COUNTY
Wells Drilling

Rice, Gibson 1*.
Smith, McClung et al 1*.

PALO PINTO COUNTY
Rigs

Seaman, Dixie Drilling Co. 1.

Wells Drilling

Dalton, Dalton Oil Co. 6.
Dalton, Dalton et al 1*.
Seudder, Denver Drilling Co. 1*.
Owens, Nelton Oil Syndicate 1*.
Johnson, Britton & Gordan 1.
Seaman, Chestnut & Smith 1.
Hart, Dixie Drilling Co. 1.
Stuart, Moore & Snebold 5, 6*.
Satterfield Heirs, Morrissey & Rowen 1.
Rasmussen, Pender Prod. Co. 2*.
Slemons, Pender Prod. Co. 3.
Fee, Texas Pacific Coal & Oil Co. 26.

PARKER COUNTY
Wells Drilling

Stickford, Coffin et al 1.
Howard, Dillon & Johnson 1.
Davis, Monroe 1*.

WISE COUNTY
Wells Drilling

Manfield, Cosden & Consolidated Oil Co. 1.
Houston, Little Co. 1.
Rigs, 8; wells drilling, 44; wells shut down, 25; total, 77.

TEXAS PANHANDLE

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Carson	3	180	0	1
Gray	16	8,964	1	0
Hutchinson	106	64,901	3	0
Potter	1	0	0	1
Swisher	1	0	1	0
Wheeler	4	230	1	1
Total October	131	74,275	6	2
Total September	115	33,089	3	6
Difference	16	41,186	3	3

Rigs and Wells Drilling

County—	Rigs	Drg.	S.D.	Ttl.
Carson	16	26	4	46
Gray	15	65	6	86
Hutchinson	70	213	40	323
Wheeler	10	9	5	24
Miscellaneous	13	31	19	63
Total October	124	344	74	542
Total September	129	397	83	609
Difference	5	53	9	67

COMPLETIONS

CARSON COUNTY

Burnett, Marland Oil Co. 2 (7,000,000).. gas
C. R. Garner, Republic Prod. Co. 1..... 150
Burnett, W. W. Silk et al 1..... 30

Wells completed 3
Production 180
Dry 0
Gas 1
Gas Prod. 7,000,000

COLLINGSWORTH COUNTY

Williams, Gibson Oil Corp. 1..... gas

GRAY COUNTY

Benton, Empire Gulf Prod. Co. 1..... dry
A. Holmes, Gulf Production Co. 1..... 65
P. A. Worley, Gulf Prod. Co. 4.....1650
P. A. Worley, Gulf Prod. Co. 5.....1140
Worley & Reynolds, Humble Oil & Refining Co. 1..... 89
Worley & Reynolds, McMan Oil & Gas Co. 1 (10,000,000 gas)..... 460
Merten, Magnolia Pet. Co. 6 (1,000,000 gas)..... 50
Merten, Phillips Pet. Co. 1..... 210
Benton, Pure Oil 1..... 150
Worley & Reynolds, Wilcox-Pampa Oil Co. 6..... 635
Worley & Reynolds, Wilcox-Pampa Oil Co. 9..... 30
Worley & Reynolds, Wilcox-Pampa Oil Co. 10..... 140
Worley & Reynolds, Wilcox-Pampa Oil Co. 12 (500,000 gas)..... 45
Worley & Reynolds, Wilcox-Pampa Oil Co. 13.....2000
Worley & Reynolds, Wilcox-Pampa Oil Co. 14.....2000
A. Holmes, Young et al 1..... 300

Wells completed 16
Production 8,964
Dry 1
Gas 0
Gas Prod. 0

HUTCHINSON COUNTY

J. F. Weatherly, American Refining Co. 1..... 500
J. A. Whittenberg-A, Amerada Pet. Corp. 3..... 100
J. A. Whittenberg-A, Amerada Pet. Corp. 5..... 150
Tom Lewis, Badger Oil Co. 2..... 150
W. L. Klagsland, Canadian River Oil Co. 5..... 100
J. A. Whittenberg, Canyon Oil Co. 4....2400
J. A. Whittenberg, Canyon Oil Co. 6....4500
Smith, Currie Bros. & J. R. Phillips 3.. 75
Johnson-A, Devonian Oil Co. 1..... 60
Smith, Dixon Creek Oil Co. 17..... 400
Smith, Dixon Creek Oil Co. 20..... 150
Smith, Dixon Creek Oil Co. 35..... 50
J. F. Weatherly, Empire Gas & Fuel Co. 5..... 700
J. F. Weatherly, Empire Gas & Fuel Co. 7..... 400
McCormick Est., Gibson Oil Corp. 1.... dry
J. A. Whittenberg-B, Goldelline Oil Co. 2..... 20
C. L. Dial, Gulf Production Co. 16..... 155
C. L. Dial, Gulf Production Co. 19..... 230
C. L. Dial, Gulf Production Co. 20..... 135
C. L. Dial, Gulf Production Co. 25..... 800
C. L. Dial, Gulf Production Co. 26..... 50
C. L. Dial, Gulf Production Co. 28..... 200
C. L. Dial, Gulf Production Co. 30..... 800
Gulf-Panhandle Cline, Gulf Prod. Co. 2.. 235
Johnson Bros., Gulf Prod. Co. 11.....3757
E. B. Johnson, Gulf Prod. Co. 5..... 60
E. B. Johnson, Gulf Prod. Co. 8..... 964
E. S. Johnson, Gulf Prod. Co. 1-A..... 150
J. A. Whittenberg-A, Gulf Prod. Co. 6.. 572
J. A. Whittenberg-B, Gulf Prod. Co. 4.. 200
Johnson, L. R. Hagy 1..... 25
W. R. Harvey, Harvey Oil Co. 1..... dry
W. L. Kingsland, J. K. Hughes Dev. Co. 8..... 2400
Kingsland, J. K. Hughes Dev. Co. 16.. 140
W. L. Kingsland-B, J. K. Hughes Dev. Co. 4..... 150
Kingsland-B, J. K. Hughes 5..... 100
Smith, Holmes, Currie & McKnight 3.... 500
Earle Thompson, Inspiration Oil Co. 1.. dry
Smith, Dan A. Japhet 3..... 200
Smith, Dan Japhet 4..... 40
Smith, Dan Japhet 5..... 50
Smith, Lucky 10 Oil Co. 3..... 150
Smith, Lenix & Patterson 2..... 40
Smith, S. D. McIlroy 2..... 800
Smith, S. D. & W. W. McIlroy 8.....1200
Johnson-Gray, McMan Oil & Gas Co. 3.1560
Johnson-Gray, McMan Oil & Gas Co. 4..3000
Johnson-Gray, Weatherly, McMan Oil & Gas Co. 3..... 8
Smith, S. D. McIlroy 3.....1500
Smith, McMan Oil & Gas Co. 7..... 200
Smith, McMan Oil & Gas Co. 8..... 400
J. A. Whittenberg, McMillan Oil Co. 3.. 400
Johnson-A, Marland Oil Co. 6..... 200
Johnson-A, Marland Oil Co. 7..... 600
J. F. Weatherly-B, Marland Oil Co. 4.. 100
J. A. Whittenberg-A, Marland Oil Co. 8.1100
J. A. Whittenberg-A, Marland Oil Co. 9. 400
J. A. Whittenberg-A, Marland Oil Co. 10 960
J. A. Whittenberg-A, Marland Oil Co. 11 200
J. A. Whittenberg-A, Marland Oil Co. 12 560
J. A. Whittenberg-A, Marland Oil Co. 13 1200
E. B. Jones, Matheson & Dunn 1..... dry
Smith-Tyrell, Midwest Exploration Co. 1 100
Johnson, Minnehoma & Kistler 1..... 200
W. D. Twitchell, Murchison & Fain 2.... 100
Whittenberg, Pantex Oil Co. 9 (was Westex Oil Co.)..... 1500
Johnson-Gordon, Phillips Pet. Co. 3..... 720
Johnson-Montford, Phillips Pet. Co. 1.. 10
Johnson-Neil Phillips Pet. Co. 1..... 10
W. L. Kingsland, Phillips Pet. Co. 3.... 75
J. J. Perkins, Phillips Pet. Co. 1..... 300
J. J. Perkins, Phillips Pet. Co. 3..... 210
J. J. Perkins (G. E. Martin), Phillips Pet. Co. 2..... 200
J. J. Perkins (G. E. Martin), Phillips Pet. Co. 3..... 200
J. A. Whittenberg, Phillips Pet. & Gibson 8..... 75
J. A. Whittenberg, Phillips Pet. Gibson 9..... 100
J. A. Whittenberg, Phillips Pet. & Coble Oil 16..... 100
J. A. Whittenberg-Burg, Phillips Pet. Co. 1..... 1440
J. A. Whittenberg-Burg, Phillips Pet. Co. 2..... 1200
Whittenberg-Jerry, Phillips Pet. Co. 3.. 200
J. A. Whittenberg-Patton, Phillips Pet. Co. 3..... 3600
Smith, J. R. Phillips et al 2..... 100
Johnson-B, Prairie Oil & Gas & Phillips Pet. Co. 4.....7000
J. A. Whittenberg, Shamrock Pet. Corp. 4..... 185
Johnson-A, Prairie Oil & Gas Co. 4..... 100
Johnson-A, Prairie Oil & Gas Co. 7.....4000
Johnson-A, Prairie Oil & Gas Co. 15... 240
Johnson-A, Prairie Oil & Gas Co. 17... 100
Johnson-A, Prairie Oil & Gas Co. 21... 400
Johnson-B, Prairie Oil & Gas Co. et al 3..... 900
M. Weatherly, Prairie Oil & Gas Co. et al 8..... 100
Smith, Relief Oil Co. 4..... 800
Smith, Henry Riley 1..... 300
Smith, Riley & Holmes 2..... 100
Jasper, Roxana Oil Corp. 1..... 5
Johnson, Skelly Oil Co. 2.....1200
J. E. Pritchard, Skelly Oil Co. 1..... 185
Smith, Spring Creek Oil Co. 4..... 400
William Lyal, Sunrise Oil Co. 1 10
E. V. Hedgecoke, White Eagle Oil & Ref. Co. 1..... 460
E. V. Hedgecoke, White Eagle Oil & Refining Co. 2..... 400
E. V. Hedgecoke, White Eagle Oil & Refining Co. 3..... 440
E. V. Hedgecoke, White Eagle Oil & Refining Co. 4..... 200
Johnson, White Eagle O. & R. Co. 2... 250
Johnson, White Eagle O. & R. Co. 8.... 100
J. A. Whittenberg, Westex Oil Co. 6.... 300

Wells completed 106
Production 64,901
Dry 3
Gas 0
Gas Production 0

POTTER COUNTY

Lee Bivins-A, Amarillo Oil Co. 5 (16,000,000) ..... gas

SWISHER COUNTY

H. L. Woodward, Overson & Keagans, 1. dry

WHEELER COUNTY

W. C. Company, Continental Oil Co. 1 (4,000,000 gas) 200
W. E. Bentley, Gibson, Gibson Oil Co. 1 (30,000,000) ..... gas
W. C. Company, Mid-Kansas Oil & Gas Co. 1 (15,000,000 gas) 30
Binkley & Cain, Murchison & Fain 1... dry

Wells completed 4
Production 230
Dry 1
Gas 1
Gas Production 15,000,000

CARSON COUNTY
Rigs

Sec. 92, Blk. 4, Johnson, Champlin Ref. Co. 1.
Sec. 91, Blk. 4, Bryan, Empire Gas & Fuel Co. 1.
Sec. 69, Blk. 2, Deeds, Gamble 1.
Sec. 10, Blk. 5, Burnett, M. & M. Drilling Co. 1.
Sec. 107, Blk. 4, Bryan, McMan Oil & Gas Co. 3.
Sec. 198, Blk. 3, Noel, Parks et al 1.
Sec. 67, Blk. 4, McConnell, Prairie Oil & Gas Co. 1.
Sec. 92, Blk. 4, Bryan, Roxana Pet. Corp. 3-A, 1-D.
Sec. 107, Blk. 4, Bryan, Roxana Pet. Corp. 1-C.
Sec. 92, Blk. 4, Bryan, Skelly Oil Co. 1.
Sec. 105, Blk. 4, Brown, Southwest Oil & Dev. Co. 1.
Sec. 91, Blk. 4, Boney, The Texas Co. 1, 2.
Sec. 106, Blk. 4, Brown, The Texas Co. 1.
Sec. 104, Blk. 4, Brown, White Deer Oil Co. 2.

Wells Drilling

Sec. 22, Blk. Y-2, Poling, Amatex Dev. Co. 1*.
Sec. 115, Blk. 5, Burnett, American Ref. Co. 8, 10.
Sec. 127, Blk. 5, Burnett, Empire Gas & Fuel Co. 1*.
Sec. 128, Blk. 5, Burnett, Gulf Prod. Co. 17.
Sec. 105, Blk. 5, Burnett, Gulf Prod. Co. 19.
Sec. 116, Blk. 5, Burnett, Gulf Prod. Co. 20.
Sec. 12, Blk. 4, Burnett, Humble Oil & Ref. Co. 1.
Sec. 127, Blk. 5, Burnett, Humble Oil & Ref. Co. 4.
Sec. 115, Blk. 5, Burnett, Magnolia Pet. Co. 3.
Sec. 92, Blk. 4, Bryan, Marland Oil Co. 1, 2.
Sec. 127, Blk. 5, Burnett, Marland Oil Co. 5-A*.
Sec. 116, Blk. 5, Burnett, Marland Oil Co. 6-A, 7-A.
Sec. 105, Blk. 5, Burnett, Marland Oil Co. 2-C, 3-C.
Sec. 117, Blk. 4, Burnett, Marland Oil Co. 1-E.
Sec. 117, Blk. 5, Burnett, Marland Oil Co. 1-F.
Sec. 126, Blk. 5, Burnett, Marland Oil Co. 1-G.
Sec. 107, Blk. 4, Bryan, McMan Oil & Gas Co. 1.
Sec. 1, Blk. 7, Witter, Mound Valley Oil Co. 1.
Sec. 22, Blk. Y-2, Poling, Navajo Oil Co. 1.
Sec. 107, Blk. 4, Bryan, Nunn-McAuley 1.
Sec. 5, Blk. 3, Denson, Prairie Oil & Gas Co. 1.
Sec. 92, Blk. 4, Bryan, Roxana Pet. Corp. 2-A.
Sec. 107, Blk. 4, Bryan, Roxana Pet. Corp. 1-B.
Sec. 89, Blk. 5, Burnett, The Texas Co. 5*.
Sec. 127, Blk. 5, Burnett, The Texas Co. 8.
Sec. 114, Blk. 4, Brown, White Deer Oil Co. 1.
Rigs, 16; wells drilling, 26; wells shut down, 4; total, 46.

GRAY COUNTY
Rigs

Sec. 115, Blk. 2-B, Mackie, Boone Drilling Co. 1.
Sec. 12, Blk. 25, Kruse, Eller 1.
Sec. 147, Blk. 3, Hundon, Gray County Pet. Co. 1.
Sec. 83, Blk. 3, Worley & Reynolds, Gulf Prod. Co. 6, 7, 8, 9.
Sec. 66, Blk. 2-B, Hopkins, Riley & Heck 1.
Sec. 162, Blk. 3, Frashier, The Texas Co. 1.
Sec. 87, Blk. 3, Holmes, The Texas Co. 1.
Sec. 44, Blk. 25, Back, Travis 1.
Sec. 4, Blk. 25, Burke, Upham Gas Co. 1.

Sec. 62, Blk. 3, Worley & Reynolds, Wilcox-Pampa Oil Co. 17, 18.
Sec. 61, Blk. 3, Worley & Reynolds, Wilcox-Pampa Oil Co. 15.
Sec. 84, Blk. 3, Worley & Reynolds, Wilcox-Pampa Oil Co. 16.

Wells Drilling

Sec. 111, Blk. 2-B, Furneaux, Archer Blake 1*.
Sec. 92, Blk. 2-B, Bowers, Barnett 1.
Sec. 148, Blk. 2-B, Bradford, Bayshore Pet. Co. 1.
Sec. 60, Blk. 2-B, Jackson, Parks & Canyon Oil Co. 1.
Blk. 25, Dial, Constantine 1*.
Sec. 10, Blk. 6-A, Noble Cranfill 1.
Sec. 129, Blk. 3, Hughey, Empire Gas & Fuel Co. 1.
Sec. 161, Blk. 3, Wall, Empire Gas & Fuel Co. 1.
Sec. 26, Blk. 2-B, Lovett, Greenwood 1*.
Sec. 175, Blk. 3, McConnell, Gulf Prod. Co. 1.
Sec. 83, Blk. 3, Worley & Reynolds, Gulf Prod. Co. 2.
Sec. 86, Blk. 3, Brinkley, Humble Oil & Ref. Co. 1.
Sec. 87, Blk. 3, Merten, Humble Oil & Ref. Co. 1, 2, 3, 4, 5.
Sec. 83, Blk. 3, Worley & Reynolds, Humble Oil & Ref. Co. 2, 3, 4, 5, 6.
Sec. 87, Blk. 1, Williams, Magdalene Oil Co. 1*.
Sec. 152, Blk. 3, Heitholt, Magnolia Pet. Co. 1.
Sec. 82, Blk. 3, Merten, Magnolia Pet. Co. 2, 3, 5, 7*, 9, 10, 11, 12, 13, 14, 15, 16, 17.
Sec. 87, Blk. 3, Merten, McMan Oil & Gas Co. 2.
Sec. 83, Blk. 3, Worley & Reynolds, McMan Oil & Gas Co. 2, 3, 4, 5, 6, 7.
Sec. 68, Blk. 25, Morris, O'Brien 1.
Sec. 90, Blk. 3, Cabbell, Pampa Oil Co. 1*.
Sec. 141, Blk. 3, Leopold, Pampa Oil Co. 1.
Sec. 86, Blk. 3, Davis, Phillips Pet. Co. 1.
Sec. 82, Blk. 3, Merten, Phillips Pet. Co. 2.
Sec. 82, Blk. 3, Merten, Prairie Oil & Gas Co. 2, 3, 4, 5.
Sec. 83, Blk. 3, Worley & Reynolds, Prairie Oil & Gas Co. 2, 4, 5, 6, 7.
Sec. 63, Blk. 3, Benton, Pure Oil Co. 2, 3.
Sec. 86, Blk. 3, Davis, Pure Oil Co. 1.
B. Cheney Survey, Finley, Roxana Pet. Corp. 1.
Sec. 175, Blk. 3, McKay, Skelly Oil Co. 1.
Sec. 212, Blk. 2-M, White, Slay et al 1.
Sec. 83, Blk. 3, Worley & Reynolds, Sun Oil Co. 1, 2, 3, 4.
Sec. 87, Blk. 3, Holmes, The Texas Co. 1, 2, 3.
Sec. 88, Blk. 3, Saunders, The Texas Co. 2.
Sec. 114, Blk. 2-M, Talley, Weir-Bribbs & Finklea 1*.
Sec. 62, Blk. 3, Worley & Reynolds, Wilcox-Pampa Oil Co. 5, 7, 11.

Rigs, 15; wells drilling, 65; wells shut down, 6; total, 86.

HUTCHINSON COUNTY

Rigs

Sec. 21, Blk. 47, Whittenberg, Amerada Pet. Corp. 2, 4-A, 5-A.
Sec. 19, Blk. Y, Weatherly, American Ref. Co. 4, 5.
Sec. 3, Blk. 4-B, Prichard, Barnsdall Oil Corp. 1.
Sec. 83, Blk. 46, Sanford, Buckeye Cons. Co. 1.
Sec. 40, Blk. 21-M, Harvey, Burge et al 1.
Sec. 7, Blk. Y, Smith, Curry & Holmes 1.
Sec. 20, Blk. Y, Johnson, Derby Oil Co. 5, 1-A.
Sec. 6, Blk. Y, Kingsland, Dixon Creek Oil Co. 1.
Sec. 14, Blk. Y, Smith, Dixon Creek Oil Co. 19.
Sec. 19, Blk. Y, Weatherly, Empire Gas & Fuel Co. 10, 11.
Sec. 9, Blk. 2-Y, Bost, Globe Oil & Ref. Co. 1.
Sec. 6, Blk. 2-Y, Bass, Golden Eagle Oil Co. 1.
Sec. 6, Blk. 23, Lewis, Great West Pet. Co. 1.
Sec. 69, Blk. 46, Johnson, Marland Oil Co. 1-B, 2-B.
Sec. 67, Blk. 46, Johnson, Prairie Oil & Gas Co. 38-A.
Sec. 4, Blk. 4-B, Johnson, Prairie Oil & Gas Co. 6-B.
Sec. 1, Blk. I, Dial, Gulf Prod. Co. 29.
Sec. 2, Blk. X02, Whittenberg, Gulf Prod. & Panhandle Ref. Co. 3-D.
Sec. 31-A, Blk. B, Christian, Heywood-Scott 2, 3.
Sec. 4, Blk. 3-B, Cockrell, McIlroy Oil Co. 1.
Sec. 5, Blk. 9, Survey-Holmes, McMan Oil & Gas Co. 9.
Sec. 2, Blk. 3-B, Cockrell, Navajo Oil Co. 1.
Sec. 12, Blk. Y, Whittenberg, Phillips Pet. Co.-Coble 20.
Sec. 69, Blk. 46, Johnson, Phillips Pet. Co.-Cruso 1.
Sec. 69, Blk. 46, Johnson, Phillips Pet. Co.-Easter 1, 2.
Tomlinson Survey, Whittenberg, Phillips Pet. Co.-Elra 3.
M. Whitley Survey, Finklea, Phillips Pet. Co. 4.
Sec. 28, Blk. Y, Ford, Phillips Pet. Co. 1.
Tract 5, M. Whitley, Johnson, Phillips Pet. Co.-Graham 1.
Sec. 6, Blk. 3-B, Kingsland, Phillips Pet. Co. 5, 6.
Sec. 4, Blk. Y, Kingsland, Phillips Pet.-Jeanette 3.
Sec. 6, Blk. 4-B, Kingsland, Phillips Pet.-Lansing 2, 4.
Sec. 66, Blk. 46, Johnson, Phillips Pet. Co.-Montford 2.
Sec. 12, Blk. Y, Smith, Phillips Pet.-Smith-Capers 7.
Sec. 71, Blk. 46, Tinny, Phillips Pet. Co. 1.
Sec. 70, Blk. 46, Johnson, Phillips Pet.-Wiley 10.
W. C. Christian Survey, Christian, Plains Drilling Co. 2.
Sec. 24, Blk. M-21, Hale, Pole Cat Oil Co. 1.
Sec. 22, Blk. Y, Johnson, Prairie Oil & Gas Co. 35-A.
Sec. 20, Blk. Y, Johnson, Prairie Oil & Gas Co. 36-A.
Sec. 4, Blk. 4-B, Johnson, Prairie Oil & Gas Co. 37-A.
Sec. 69, Blk. 46, Johnson, Prairie Oil & Gas Co. 5-B.
Sec. 19, Blk. Y, Weatherly, Prairie Oil & Gas Co. 11.
Sec. 70, Blk. 46, Johnson, Pure Oil Co. 2-B.
Sec. 22, Blk. 5, Whittenberg, Skelly Oil Co. 4.
Sec. 6, Blk. Y, Kingsland, Skia-Tex Oil Co. 5, 6.
Sec. 14, Blk. Y, Smith, Sunburst Oil Co. 3, 4.
Sec. 12, Blk. Y, Whittenberg, Sunny Jim Oil Co. 4.
Sec. 4, Blk. B-4, Cunningham, Skelly Oil Co. 6.
Sec. 15, Blk. Y, Weatherly, Spurlock 1.
Sec. 7, Blk. Y, Smith, Sweeney et al 1.
Sec. 4, Blk. Y, Kingsland, Wall & Morrison 1.
Hedgecoke Survey, Hedgecoke, White Eagle Oil & Ref. Co. 5, 6.
M. Whitley Survey, Montgomery-Johnson, White Eagle Oil & Ref. Co. 1.

Wells Drilling

Sec. 20, Blk. 47, Whittenberg, Amerada Pet. Corp. 3.
Sec. 19, Blk. Y, Weatherly, American Ref. Co. 2*.
Sec. 1, Blk. J, Yake, Anderson-Prichard 1*.
Sec. 3, Blk. 4-B, Prichard, Barnsdale 2.
Sec. 3, Blk. 4-B, Prichard (Sally), Barnsdale 1.
Sec. 8, Blk. Y, Smith, Block Y Pet. Co. 1.
Sec. 13, Blk. Y, Whittenberg, Brookins & Kistler 1*, 2*.
Sec. 1, Blk. 4-B, Prichard, Center Dome Oil Co. 2.
Sec. 14, Blk. Y, Smith, Cockrell McIlroy 3*, 4*.
Sec. 14, Blk. Y, Smith, Currie & Phillips 2, 3, 4.
Sec. 20, Blk. Y, Johnson-Grace, Delmar Oil Co. 3*, 4.
Sec. 20, Blk. Y, Johnson, Delmar Oil Co. 2, 3, 4.
Tract 3 M. Whitley Survey, Johnson, Devonian Oil Co. 4.
Tract 4, M. Whitley Survey, Johnson, Devonian Oil Co. 5*, 6.
Sec. 1, Blk. Y, Smith, Dixon Creek Oil Co. 11.
Sec. 14, Blk. Y, Smith, Dixon Creek Oil Co. 12*, 17-A.
Sec. 12, Blk. Y, Smith, Dixon Creek Oil Co. 25, 26*, 27*, 28*.
Sec. 5, Blk. Y, Smith, Dixon Creek Oil Co. 35.
Sec. 7, Blk. Y, Smith, Dixon Creek Oil Co. 37.
Sec. 23, Blk. M-23, Dominion Oil Co. 1.
Sec. 24, Blk. M-21, Haile, Donald 1.
Sec. 15, Blk. X02, Whittenberg, Douglas Oil Co. 2-B.
Sec. 21, Blk. Y, Johnson, Dunnigan et al 2.
Sec. 11, Blk. Y, Smith, Echo Oil Co. 1.
Sec. 68, Blk. 46, Johnson, Empire Gas & Fuel Co. 2-A*, 3-A*, 4-A, 5-A.
Sec. 21, Blk. Y, Johnson, Empire Gas & Fuel Co. 2-B, 3-B.
Sec. 19, Blk. 9, Weatherly, Empire Gas & Fuel Co. 2*, 4, 6*, 8, 9.
Sec. 1, Blk. LA, Harvey, Flanders Oil Co. 1*.
William Heath Survey, Carver, Flowers et al 1*.
Sec. 4, Blk. Y, Kingsland, Four Y Oil Co. 1*.
Sec. 3, Johnson, Fronterhouse & Wetsel 1.
Sec. 27, Blk. 47, Whittenberg, Goldeline Oil Co. 1-A.
Sec. 24, Blk. 47, Whittenberg, Goldeline Oil Co. 1-C.
Sec. 8, Blk. M-23, Lewis, Gopher 1.
Sec. 3, Blk. Y, Cockrell, Gulf Prod. Co. 1-A, 3.
Sec. 1, Blk. I, Dial, Gulf Prod. & Panhandle Ref. Co. 27, 28.
Sec. 25, Blk. 47, Dial, Gulf Prod. & Panhandle Ref. Co. 31.
Sec. 1, Blk. I, Dial, Gulf Prod. Co. 32, 33, 34.
Sec. 1, Blk. X02, Dial, Gulf Prod. Co. 35, 36, 37.
Sec. 90, Blk. Z, Dial, Gulf Prod. & Panhandle Ref. Co. 38.
Sec. 66, Blk. 46, Johnson, Gulf Prod. Co. 4, 13.
Sec. 70, Blk. 46, Johnson, Gulf Prod. Co. 12*.
Sec. 29, Blk. 47, Reamer, Gulf Prod. Co. 1.
Sec. 75, Blk. 46, Sanford, Gulf Prod. Co. 1.
M. Whitley Survey, Whittenberg, Gulf Prod. Co. 4, 5, 7-A, 8-A.
Sec. 1, Blk. 31, Whittenberg, Gulf Prod. Co. 9-A.
Sec. 65, Blk. 46, Whittenberg, Gulf Prod. & Panhandle Ref. Co. 2-E, 3-E.
Sec. 65, Blk. 46, Whittenberg, Gulf Prod. Co. 4-E, 5-E.
Sec. 1, Blk. Y, Smith, Herring-McIlroy 5*, 6*.
Sec. 31-A, Blk. B, Christian, Heywood-Scott 2*.
Sec. 14, Blk. Y, Smith, Phillips-Heywood 3.
Sec. 12, Blk. Y, Smith, Holmes 2.
Sec. 18, Blk. Y, Weatherly, Homestead Oil Co. 1.
Sec. 6, Blk. 4-B, Kingsland, Hughes 3-B, 7-B*, 8-B.
Sec. 8, Blk. M-21, King, Hughes 1-C.
Sec. 11, Blk. Y, Smith, Dan Japhet 6.
Sec. 21, Blk. Y, Johnson, Kistler 1, 2.
Sec. 13, Blk. Y, Whittenberg, Kistler-Lenix 1, 2.
Sec. 5, Blk. Y, Smith, Lenix Oil Co. 1.
Sec. 11, Blk. Y, Lucky Ten Oil Co. 2*, 3, 4.
Sec. 22, Blk. Y, Johnson, Manhattan Oil Co. 1.
Sec. 125, Blk. 5, Burnett, Marland Oil Co. 1-H.
M. Anglin Survey, Christian, Marland Oil Co. 1, 2, 3, 4.
Sec. 5, Blk. 1, Johnson, Marland Oil Co. 1.
Sec. 20, Blk. Y, Johnson, Marland Oil Co 5-A, 7-A, 8-A.
Sec. 76, Blk. 46, River Bed, Marland Oil Co. 1.
Sec. 19, Blk. Y, Weatherly, Marland Oil Co. 3-A.
Sec. 65, Blk. 46, Whittenberg, Marland Oil Co. 3.
Sec. 15, Blk. Y, Smith, Marland Oil Co. 1.
Sec. 14, Blk. Y, Smith, W. W. McIlroy 1.
Sec. 14, Blk. Y, Smith, McIlroy & Kistler 4, 5*, 6*.
Sec. 7, Blk. Y, Smith-Kingsland, Middleton 1.
Sec. 7, Blk. Y, Dick, Midwest Exploration Co. 2*.
Sec. 70, Blk. 46, Johnson, Midwest Exploration Co. 1.
Sec. 5, Blk. Y, Smith, Midwest-Holmes-Curry 2*, 3.
Sec. 5, Blk. Y, Holmes-Smith, Midwest Exploration Co. 4.
Sec. 12, Blk. Y, Terrell, Midwest Exploration Co, 2, 3.
Sec. 13, Blk. Y, Whittenberg, Midwest Exploration Co. 1, 2, 5, 6.
Sec. 50, Blk. M-23, Luginbyhl, Pan-Field Oil Co. 1.
Sec. 5, Blk. Y, Smith, Panhandle Ref. Co. 1.
Sec. 12, Blk. Y, Smith, Phillips Pet. Co. 3*.
Sec. 12, Blk. Y, Smith-Capers, Phillips Pet. Co. 4.
Sec. 64, Blk. 46, Barnun, Phillips Pet. Co. 3.
Sec. 84, Blk. 46, Bivins, Phillips Pet. Co. 1.
M. Whitley Survey, Burg, Phillips Pet. Co. 2, 3, 5, 6.
M. Whitley Survey, Whittenberg, Phillips Pet-Byron 1.
Blk. V, Christian, Phillips Pet-Byron 1.
Sec. 13, Blk. Y, Whittenberg, Phillips Pet-Coble 17, 19, 21.
Sec. 64, Blk. 46, Johnson, Phillips Pet.-Dorsett 2.
Sec. 64, Blk. 46, Whittenberg, Phillips Pet.-Dorsett 3.
Tomlinson Survey, Whittenberg, Phillips Pet.-Elra 1, 2, 4, 5, 7, 8.
Sec. 6, M. Whitley Survey, Johnson, Phillips Pet.-Finklea 2, 3.
Sec. 2, M. Whitley, Whittenberg, Phillips Pet.-Florence 1.
Sec. 26, Blk. 47, George, Phillips Pet. Co. 1, 2.
Sec. 21, Blk. Y, Johnson, Phillips Pet.-Gordon 4, 6, 7.
Tr. 5, M. Whitley Survey, Johnson, Phillips Pet.-Graham 2, 4, 5.
Sec. 65, Blk. 46, Whittenberg, Phillips Pet.-Grub 1.
Sec. 6, Blk. B-4, Kingsland, Phillips Pet. Co. 2.
Sec. 6, Blk. B-4, Phillips-King, Phillips Pet. Co. 4.
Sec. 6, Blk. B-4, Kingsland, Phillips Pet.-Lansing 3.
Sec. 4, M. Whitley, Whittenberg, Phillips Pet.-Patton 4, 5, 6.
M. Whitley Survey, Whittenberg, Phillips Pet.-Patton 7, 8, 9, 10, 11, 12.
Sec. 67, Blk. 46, Whittenberg, Phillips Pet.-Patburg 1, 2, 3.
Sec. 16, Blk. X02, Perkins, Phillips Pet. Co. 1.
Sec. 82, Blk. 46, Sandford, Paramount 1.
Sec. 12, Blk. Y, Smith, Phillips-Capers 4, 5, 6.
Sec. 63, Blk. 46, Whittenberg, Phillips Pet. Co. 8, 9.
M. Whitley Survey, Whittenberg, Phillips Pet.-Gibson 2, 5.
Sec. 65, Blk. 46, Whittenberg, Phillips-Whit 1, 2, 3, 4.
W. C. Christian Survey, Christian, Plains Drilling Co. 1-B.
Sec. 64, Blk. 46, Johnson, Prairie Oil & Gas Co. 3-A*, 20-A*.
Sec. 20, Blk. Y, Johnson, Prairie Oil & Gas Co. 18-A, 19-A*, 23-A, 24-A, 31-A.
Sec. 21, Blk. Y, Johnson, Prairie Oil & Gas Co. 22-A, 25-A, 27-A, 28-A, 29-A, 30-A, 32-A.
Sec. 63, Blk. 46, Johnson, Prairie Oil & Gas Co. 33-A.
Sec. 69, Blk. 46, Johnson, Prairie Oil & Gas Co. 4-B.
Sec. 27, Blk. Y, Diana Shaw, Prairie Oil & Gas Co. 2.
Sec. 19, Blk. Y, Weatherly, Prairie Oil & Gas Co. 7.
M. Whitley Survey, Whittenberg, Prairie Oil & Gas Co. 1, 3, 4*.
Sec. 35, Blk. 47, Yake, Prairie Oil & Gas Co. 1*.
Sec. 70, Blk. 46, Johnson, Pure Oil Co. 1-B.
Sec. 32, Blk. M-23, Starnes, Rock Island Oil Co. 1.
Sec. 14, Blk. Y, Smith, Roxana Pet. Corp. 4.
M. Whitley Survey, Johnson, Ryan Cons. 4.
Sec. 95, Blk. 5-T, Jarvis, W. W. Silk 1.
Sec. 43, Blk. 47, Williams, Sinclair Oil & Gas Co. 1.
Sec. 4, Blk. 4-B, Cunningham, Skelly Oil Co. 4.
Sec. 20, Blk. Y, Johnson, Skelly Oil Co. 5, 6, 7, 8, 9, 10, 11, 12.
Sec. 3, Blk. 4-B, Prichard Breen, Skelly Oil Co. 1.
Sec. 6, Blk. Y, Kingsland, Skia-Tex Oil Co. 3, 7.
Sec. 13, Blk. Y, Whittenberg, Summitt Oil Co. 3.
Sec. 8, Blk. B-3, Cockerell, Swindler et al 1.
Sec. 132, Blk. 5, Burnett, The Texas Co. 7.
Sec. 1, Tomlinson, Johnson, Tex-O Oil Co. 1.
Sec. 6, Blk. Y, Kingsland, Travelers Oil Co. 3.
Sec. 5, Blk. Y, Smith, Triangle Oil Co. 1*, 4*.
Sec. 3, Blk. Y, Cockrell, Ward & Snell 2*.
Sec. 34, Blk. 47, Merchant, Wentz Oil Corp. 1.
Sec. 4, Blk. B-4, Johnson-Grace, White Eagle Oil & Ref. Co. 2.
Sec. 64, Blk. 46, Hagy-Johnson, White Eagle Oil & Ref. Co. 8*.
Sec. 64, Blk. 46, Johnson, White Eagle Oil & Ref. Co. 3.
Lot 4, Johnson-Underwood, White Eagle Oil & Ref. Co. 1.

Rigs, 70; wells drilling, 213; wells shut down, 40; total, 323.

WHEELER COUNTY

Rigs

Sec. 29, Blk. 13, Karlton, American Ref. Co. 1.
Sec. 91, Blk. 17, Burchan, Angus et al 1.
Sec. 40, Blk. 24, Farris, J. R. Oil Co. 1.
Sec. 41, Blk. B-24, Phillips, Gibson Oil Corp. 2.
Sec. 40, Blk. 24, Johnson, Magnolia Pet. Co. 1.
Sec. 37, Blk. 24, Brinkley & Cain, Murchison & Fain 1-A.
Sec. 77, Blk. 23, Close, Murchison & Fain 1.
Sec. 88, Blk. 5-A, Johnson, Smith et al 1.
Sec. 1, Blk. 24, Griswold, Upham Gas Co. 1.
Sec. 92, Blk. 17, Strickey, Upham Gas Co. 1.

Wells Drilling

Sec. 41, Blk. 24, Phillips, Gibson Oil Corp. 4.
Sec. 61, Blk. 24, Porter, Hill-Cook-Reiley 1.
Sec. 10, Blk. 27, Laycock, Laycock et al 1.
Sec. 55, Blk. 24, Binkley & Cain, Murchison & Fain 1*.
Sec. 1, Blk. 24, Jones, Rook 1*.
Sec. 11, Blk. 27, Jackson, Scott, Allen & Bledsoe 1.
Sec. 11, Blk. 27, Jackson, Scott-Varner 1*.
Sec. 53, Blk. 4-A, Sorenson, South Vernon Oil Co. 1*.
Sec. 40, Blk. 24, Noah Smith, The Texas Co. 1.
Sec. 88, Blk. 17, George, Upham Gas Co. 1*.
Sec. 89, Blk. 17, Martin, Upham Gas Co. 1.
Sec. 77, Blk. 17, O'Gorman, Vaughan et al 2.
Sec. 13, Blk. 5-A, Woodley, Woodley 1.
Sec. 11, Blk. 27, Jackson, World Oil Co. 1

Rigs, 10; wells drilling, 9; wells shut down, 5; total, 24.

MISCELLANEOUS PANHANDLE ARMSTRONG COUNTY

Wells Drilling

Sec. 3, Puckett, Red Hill Pet. 1.

CHILDRESS COUNTY

Rigs

F. P. Knott Survey, B. P. Smith, C. L. Sloane et al 1.

Wells Drilling

J. Gregg Survey, Smith, Gibson Oil Corp. et al 1.

COLLINGSWORTH COUNTY

Wells Drilling

Sec. 107, Blk. 22, McDowell, Allman et al 1.
Sec. 5, Blk. 13, Williams et al, Gibson Oil Corp. 1.
Sec. 30, Blk. 16, Mrs. T. V. Smallwood, Martin et al 1*.

DALLAM COUNTY

Wells Drilling

Sec. 9, Blk. 47½, Fee, James et al 1*.
Sec. 19, Blk. 17, Capitol Syndicate, Harry Skelly et al 1.

DONLEY COUNTY

Wells Drilling

Sec. 39, Blk. 3-C, F. E. Harrington, A. T. Drilling Co. 1.

HANSFORD COUNTY

Wells Drilling

Sec. 56, Blk. 2, F. A. Davis, F. W. Dillard et al 1*.
Sec. 2, Whitson, Oklavania Oil Co. 1.

HARTLEY COUNTY

Rigs

Sec. 27, Blk. 16, Frances Farwell, Amerada Pet. Corp. 1.

Wells Drilling

Sec. 9, Blk. 2, Lyman & Balfour, Deep Rock Oil Co. 1*.
Sec. 13, Blk. 13, J. B. Irving, Eslick et al 1*.
Sec. 58, Blk. XR, G. B. Coots, W. W. Holmes 1.
Sec. 63, J. M. Shelton, Humble Oil & Ref. Co. 1.
Sec. 3, Blk. LS, E. S. Collins, J. B. McKanna 1.
Sec. 10, Blk. 22, Frances Farwell, J. B. McKanna 1.
Sec. 29, Blk. 202, J. M. Shelton Est., J. B. McKanna 1*.
Sec. 1, Blk. S-B, J. M. Shelton Est., Kork Oil Co. 1*.

HEMPHILL COUNTY

Rigs

Sec. 189, Blk. C, J. C. Isaacs, A. J. Calhoun 1.
J. Fanning Survey, Schaller Est., McCockrel et al 1.*.

Wells Drilling

Sec. 1, Poitevent, Alexander, Dorning et al 1*.
Sec. 40, Blk. 2-A, J. E. George, Fisher, Oil Co. 1.
Sec. 4, Schaller Est., Hoover et al 1*.
J. S. Hood Survey, Fee, Hoover et al 1.

LIPSCOMB COUNTY

Wells Drilling

Sec. 612, Blk. 43, Mrs. H. D. May, Everett et al 1.
Sec. 504, Blk. 43, A. Barton, McCorkle (was Snyder) 1.

MOORE COUNTY

Rigs

Sec. 237, Blk. 44, John Lowrey, Shadler Bros. 1.

Wells Drilling

Sec. 59, Blk. O-18, Masterson-J. Amarillo Oil Co. 1.
Sec. 19, Blk. 44, Terry Thompson, Amarillo Oil Co. 2.
Sec. 68, Blk. 3, J. T. Sneed Jr., Cadman et al 1.
Sec. 112, Blk. 44, H. W. Beauchamp, Douglas Oil Co. 1*.
Sec. 25, Blk. 1, J. T. Sneed Jr., Flowers & Marland Oil Co. 1.
Sec. 28, Blk. 44, Kilgore, Humble Oil & Ref. Co. 1.
N. Jones Survey, Sneed, Phillips Pet. Co. 1*.
Sec. 58, Blk. 6-T, J. T. Sneed Jr., Masters Oil Co. 1.
Sec. 191, Blk. 3-T, Rubert, Morton & Co. 1-H*.
Sec. 26, Blk. 6-T, Sneed, Prairie Oil & Gas Co. 2.
Sec. 30, Blk. 6-T, Sneed, The Moore County Oil Co. 1*.
Sec. 16, Blk. M-21, O. E. Gober, Shamrock Pet. Co. 1.

OCHILTREE COUNTY

Rigs

Sec. 674, Blk. 43, Weinett, McCorkle 1.

Wells Drilling

Sec. 279, Blk. 43, Stickler, W. G. Burton 1*.
Sec. 144, Blk. 43, R. E. Wamble, Hamilton et al 1*.
Sec. 471, Blk. 43, R. H. Moore, McCorkle Pipe Line Co. 1*.
Sec. 923, Blk. 43, Bowden, Standard Dev. Co. 1*.

PARMER COUNTY

Rigs

Sec. 2, Blk. 2, Farwell et al, Humble Oil & Ref. Co. 1.

POTTER COUNTY

Rigs

Sec. 19, Blk. P, W. H. Bush, Kelmey Oil Co. 1.

Wells Drilling

Sec. 4, Fuqua, Amarillo Oil Co. 1*.
Sec. 6, Blk. Z-6, G. A. Carey, The California Co. 1.
Sec. 167, Blk. 2, Townsite, Greater Amarillo Pet. Co. 1.
Sec. 89, Blk. 9, W. H. Bush, Gulf Prod. Co. 1.
Sec. 3, Blk. 1, J. A. Jones, Farmers Oil & Gas Co. 1*.

RANDALL COUNTY

Wells Drilling

Sec. 97, Blk. B-5, J. M. Redfearn, Red Hill Corp. 1.

ROBERTS COUNTY

Rigs

Tr. 2, Clay Co. Sch. Hamilton, Charles Page et al 1.
Sec. 179, Blk. 42, A. H. Tandy, Pan-State Oil Co. 1.

Wells Drilling

Sec. 7, Blk. A-5, Mrs. H. Ledrick & Sons, Big Ben Oil Co. (was Phil Engle) 1
Sec. 109, Blk. C, T. E. Jones, Gibson Oil Corp. 1.
Sec. 31, Blk. M-2, Gill, Murphy et al 1.
Sec. 29, Blk. 1-B, J. A. Meade, Pettijohn et al 1.
School Land, Hammond, Trammel et al 1*.

SHERMAN COUNTY

Rigs

Sec. 25, Blk. 2, Lee Bivins, Eclipse Drilling Co. 1.

Wells Drilling

Sec. 35, Blk. 3-B, Bivins, Get Oil Corp. 1.
Sec. 161, Blk. 1-C, Roach, Phillips Pet. & Savoy 1.

SWISHER COUNTY

Rigs

Sec. 8, Blk. M-13, Stallings, Keagan & Baker 1.

Rigs, 13; wells drilling, 31; wells shut down, 19; total, 63.

SOUTHWEST TEXAS

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Luling	2	225	0	0	0	2	2
Mirando	46	6,450	4	13	21	45	66
Somerset	3	25	0	0	1	2	3
Rockdale							
Minerva	6	55	1	0	3	5	8
Lockhart	0	0	0	0	1	1	2
Miscellaneous	2	40	0	1	7	50	57
Total October	59	6,795	5	14	33	105	138
Total Sept.	63	10,196	7	11	36	93	129
Difference	4	3,401	2	3	3	12	9

WELLS COMPLETED

LULING

———, Magnolia Pet. 25 150
———, Magnolia Pet. 15 75

Wells completed 2
Production 225

MIRANDO

Cole-Tex, Weber, Magnolia Pet. 1 250
LaGarza, Killiam & Winch 2 ..... gas
———, Associated Oil & Carson 1 ..... gas
Cole, Houston Oil 1-A 50
Benavides, Houston Oil 6 ..... gas
Cole, Cole Pet. 19, 20, 21 ..... abd
Randado, Houston Oil 5 ..... gas
Randado, Houston Oil 6 175
Randado, Grayburg Oil 5 ..... gas
Randado, Grayburg Oil 6 ..... gas
Randado, Grayburg Oil 7 100
Randado, Grayburg Oil 8 100
Randado, Simms Oil 5 35
Randado, Simms Oil 15 ..... gas
Randado, M. J. Bashara Oil 2 30
Palacios, Simms Oil 5 70
Palacious, Simms Oil 15 ..... gas
Randado, Houston-Gulf Co. 20 175
Randado, Simms Oil 4 40
Randado, Simms Oil 14 40
Randado, Wheelock 4 75
Mesquite, Houston Oil 1 ..... gas
Randado, Magnolia Pet. 12 800
Randado, Smith & Wilcox 14 500
Randado, Smith & Maddox 12 400
Randado, Smith & Wilcox 14 500
Webb, United Gas & Oil 1 ..... abd
Bruni, Harper et al 1 ..... gas
Webb, Ruthada Oil 7 90
Webb, Verdine et al 1 ..... gas
Webb, Crown Central Oil 8 50
Webb, Sun Co. 6 350
Jim Hogg, Holbein, Kittleman & Co. 46 100
Holbein, Kittleman & Co. 47 500
Holbein, Kittleman & Co. 48 200
Holbein, Kittleman & Co. 50 200
Merchant, Magnolia Pet. 14 200
Schott, Murchison & Pain 4 150
Schott, O'Hern et al 2 35
Aviator, Topham 1-C ..... gas
Bruni, Sun Co. 7 ..... dry
Aviator, Crown Central 18 400
Aviator, Gibson Oil 17 200
Aviator, Gibson Oil 16 150
Aviator, Suldida Drg. 1-C ..... gas

KENTUCKY-TENNESSEE

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Warren	9	252	2	0	1	14	15
Allen	13	33	2	0	0	8	8
Barren	24	289	3	0	0	45	45
Owensboro district	17	90	9	0	2	23	25
Cumberland-Monroe	1	150	0	0	7	15	22
Simpson	1	3	0	0	0	1	1
Casey	0	0	0	0	1	1	2
Christian	1	0	1	0	0	0	0
Butler	0	0	0	0	0	1	1
Clinton	0	0	0	0	0	4	4
Grayson	0	0	0	0	0	3	3
Muhlenberg	0	0	0	0	0	1	1
Wayne	5	10	2	0	0	5	5
Lee-Owsley	2	0	0	2	0	6	6
Estill	9	48	1	0	0	6	6
Powell	0	0	0	0	0	1	1
Wolfe	1	15	0	0	0	3	3
Lawrence-Johnson	8	60	0	0	1	8	9
Johnson-Magoffin	17	166	0	1	1	27	28
Floyd-Knott	5	0	0	5	0	6	6
Knox	0	0	0	0	0	4	4
Morgan	0	0	0	0	0	3	3
Elliott	0	0	0	0	1	3	4
Menifee	0	0	0	0	0	2	2
Laurel	1	0	0	0	0	1	1
Jackson	0	0	0	0	0	1	1
Carter	0	0	0	0	0	3	3
McCreary	0	0	0	0	0	2	2
Kentucky	113	1,116	20	8	14	197	211
Tennessee	3	400	0	0	0	17	17
Mississippi	1	0	0	1	0	10	10
Alabama	0	0	0	0	0	4	4
Florida	0	0	0	0	4	9	13
Total, Oct.	117	1,516	20	9	18	237	255
Total Sept.	104	1,089	24	3	18	224	242
Difference	13	427	4	6	0	13	13

WELLS COMPLETED

WARREN COUNTY

Bowling Green—C. G. Davenport, Wood Oil 24 225
R. C. Smith, H. V. Taylor Atty. 19... 12
Cooper Morgan, E. H. Fuller 4..... dry
Albert Sears, Lincoln Oil Prod. 1..... dry
Allen Manning, H. W. Teague 4..... 3
Jeff Coley, Phillips, Stewart Co. 1.... 2
Vance, Dr. W. B. Stubble 11..... 5
Deatbridge, Hudson & Co. 3..... 3
Covington, Zimmer & Co. 10..... 3

Wells completed 9
Production 252
Dry 2

ALLEN COUNTY

Scottsville—Andy Smith, Lackawanna Prod. & Ref. 32..... 2
J. W. Frost, Moorman 14..... 4
Meredith, Hahn & Co. 11..... 3
Newman, Bastrus & Co. 3..... 3
Oliver, Cyphus & Harley 5..... 3
Buchannan, Buchannan & Buchannan 9..... dry
W. M. Dodson, A. Davis 6..... 1
Effie Sanders, Helka Dev. 20..... 1
M. & J. Lewis, Mealey & Mealey 21... 5
M. & J. Lewis, Mealey & Mealey 22... 5
M. & J. Lewis, Mealey & Mealey 23... 5
F. H. Convell, Helka Dev. 1..... 1
W. F. Cooksey, Dye & Dye 3..... dry

Wells completed 13
Production 33
Dry 2

BARREN COUNTY

Emery-Moore Pool—Howard, Fred C. Moore 13..... 8
Travis, Fred C. Moore 15..... 8
Travis, Fred C. Moore 16..... 10
Toddy, Fred C. Moore 1..... dry
Hall Baker Pool—H. W. Duff, Consolidated Gas 47..... 20
H. W. Duff, Consolidated Gas 48..... 20
H. W. Duff, Consolidated Gas 49..... 20
Knob Road Pool—Darter Bros. A. W. Ziegler Atty. 3..... 20
Darter Bros. A. W. Ziegler Atty. 4... 15
Darter Bros. A. W. Ziegler Atty. 5... 15
Richardson, Star Oil & Gas 12..... 12
Richardson, Star Oil & Gas 13..... 10
Richardson, Star Oil & Gas 14..... 10
Richardson, Star Oil & Gas 15..... 10
Richardson, Star Oil & Gas 16..... 10
Richardson, Star Oil & Gas 17..... 8
White, R. B. Tyler Co. 12..... 10
White, Tyler Co. 13..... 15
C. D. Boyd, A. W. Ziegler Atty. 7..... dry
Lecta Pool—C. B. Jones, Esslinger Oil 14..... 20
C. B. Jones, Esslinger Oil 15..... 18
C. B. Jones, Esslinger Oil 16..... 15
Dean, H. E. Merrifield trustee 1..... 15
Wildcat—Elliott, Elliott Oil 4..... dry

Wells completed 24
Production 289
Dry 3

OWENSBORO DISTRICT
(Hancock-Ohio-Daviess Counties)

Owensboro District—Ohio Oil 1... dry
Lonzo Crowe, Ohio Oil 1..... 15
R. A. Owens, Noble-Bolyard Oil 1..... dry
Buck Howard, Pet. Explor. 1..... dry
Laura Mercer, Penn-Indian Oil Syndicate 9..... 10
Laura Mercer, Penn-Indian Oil Syndicate 10..... 10
C. A. Kelley, Penn-Indian Oil Syn. 5.. 7
J. B. Ellis, J. W. Loman trustee 6..... dry
J. A. Greer, Leeper Oil 2..... dry
Barker, Leeper Oil 1..... 10
J. H. McDaniels, Surety Oil 2..... 10
J. H. McDaniels, Surety Oil 3..... 26
Kirk-Woodward, Pet. Extrac. 2..... dry
A. Westerfield, Ellis & Thomas 1..... dry
A. Martin, Courson & Ellis 1..... dry
Manuel Thompson, Daviess County Oil 1..... dry
Allie Evans, Butte Dredging 5..... 3

Wells completed 17
Production 90
Dry 9

CUMBERLAND-MONROE COUNTIES

Hopewell—Brockman, Woo-Haislet, McLennon & Co. 5..... 150

SIMPSON COUNTY

Franklin—Holleman, Lincoln Oil Producing 3..... 3

CHRISTIAN COUNTY

Hopkinsville—W. E. Denton, Pet. Exploration 1..... dry

WAYNE COUNTY

District 3—Burnett hrs. D. A. Atkins 6. dry
Albert Cooper, Bell & Black 14..... 3
Albert Cooper, Bell & Black 15..... dry
District 5—Boston Lair & Co. Ross heirs 6..... 2
District 13—Nancy L. Jones heirs, W. L. Souther 3..... 5

Wells completed 5
Production 10
Dry 2

LEE-OWSLEY COUNTIES

District 18-B—G. Gabbard heirs, Pet. Exploration 1..... gas
Walter T. Coombs, Pet. Explor. 1..... gas

Wells completed 2
Gas 2

ESTILL COUNTY

District 7—Rogers, Mt. Springs Oil 14.. 5
Malissa Rogers, Mt. Springs Oil 4.... dry
District 8—Simp Horn, Superior Oil Corp. 23..... 3
Simp Horn, Superior Oil Corp. 24..... 5
D. Alexander, Superior Oil Corp. 2..... 5
Wm. Neal, Wood Oil 12 3
Joe Neal, Wood Oil 1..... 4
Joe Neal, Wood Oil 2..... 8
Thos. Mitchell, Brenner & Adams 3.. 15

Wells completed 9
Production 48
Dry 1

WOLFE COUNTY

District 6—Spencer heirs, Pet. Explor. 5 15

LAWRENCE-JOHNSON COUNTIES

District 22—J. M. Sparks, Holland & Wade 5..... 5
Foster Ferguson, Garrison & Townsend 6..... 8
C. K. Dobbins, Garrison & Townsend 22 6
Jas. P. Skaggs, Swiss Oil Corp. 21.... 6
District 22-2—Jesse Lyons, Keaton Oil & Gas 33..... 10
District 32—P. P. Holbrook, Swiss Oil Corp. 47..... 10
P. P. Holbrook, Swiss Oil Corp. 48.. 7
District 33—J. M. Fyffe, Swiss Oil Corp. 24..... 8

Wells completed 8
Production 60

JOHNSON-MAGOFFIN COUNTIES

District 25—Gardner Blanton, Atlantic Oil Prod. 23..... 8
Gardner Blanton, Atlantic Oil Prod. 24 8
P. E. Caudill, Reno Oil 11..... 6
District 27—W. M. Prater, Structure Oil 1..... 5
District 29—Yearns Hale, R. G. Gillespie estate 5..... 10
Oscar S. Wheeler, Hudson & Collins 13..... 3
Brack Borders, 32 a, C. C. Bosworth 2 2
District 30—Sam Blanton, R. G. Gillespie estate 20..... 10
Lee Owens, The Wilson Oil 4..... 5
Lee Owens, The Wilson Oil 5..... 5
L. D. Holbrook, George & Touma 4.... 2
John McCartu, D. A. Wishard & Co. 1. 2
District 31—B. F. Whitt No. 1, Hupp, Duff & Chiles 3..... 60
B. F. Whitt No. 3, Hupp, Duff & Chiles 2..... 25
Malcom Whitt, Hupp, Duff & Chiles 1 10
J. J. Pace, Hartman Oil 1..... 5
Whittaker, Louisville Gas & Electric 1 gas

Wells completed 17
Production 166
Gas 1

Floyd-Knott Counties

District 21—W. P. Leslie, Eastern Carbon Black 3, 4..... gas
Geo. Gearhart, Midas Gas 12..... gas
Mouse Martin, Louisville Gas & Electric 3..... gas
S. C. Allen, Eastern Carbon Black 2.. gas

Wells completed 5
Gas 5

TENNESSEE
CLAY COUNTY

Clark Hill—Kelly Thurman, Clark Hill Oil 2..... 100
J. M. Gray, Clark Hill Oil 2..... 50
J. Will Pennington, David McGowan & Co. 1..... 250

Wells completed 3
Production 400

MISSISSIPPI
MONROE COUNTY

Sec. 7-13s-17 2—Carter, Amory Pet. 1 gas

KENTUCKY
WARREN COUNTY
Rigs

Bowling Green—Worden, C. P. Tannehill 1.

Wells Drilling

Bowling Green—Temp Bailey, Pet. Explor. 5.
Hundley-Walter, W. Roy Hogan 2.
Georgia Ann Davenport, T. A. Sheridan 6.
Keller, Alf. F. Hughes 1.
Chas. Cox, A. F. Bannon 18.
Ora S. Davenport, Ruther Turner 5.
W. R. Hunton, P. H. Lavelle 9.
D. C. Butler, Thossen & Cupler 2.
Hyde Baker Jones, W. L. McClanahan & Co. 4.
C. G. Davenport, 22-A, Wood Oil 25.
C. G. Davenport, 50-A, Onsel Bros. & Co. 5, 9.
Joe Hobson, Joe Hobson 1.
E. J. McCain, Garland D. Sledge 5.
Rigs, 1; wells drilling, 14; total, 15.

ALLEN COUNTY
Wells Drilling

Scottsville—John Fraley, Reaber & Co. 1.
W. M. Hall, Reaber & Co. 1.
Lee Moore, No. 2, Lee More 7.
I. Strait, Dodson & Strait 1.
Connie Jackson, James Dobie Atty. 1.
Riley Hunt, Riley Hunt 13.
Tomey Justice, James Dobie 1.
M. & J. Lewis, Mealey & Mealey 24.
Wells drilling, 8.

BARREN COUNTY
Wells Drilling

Emery-Moore—Wilson Chill Kopel 4.
Mayfield, Houchins Leasehold 16.
Travis, Fred C. Moore 17.
Hall-Baker-Hutcherson, Wood Oil 1.
R. E. Evans, Harrington & Norris Bros. 12.
H. W. Duff, Consolidated Gas 50, 51, 52.
Gorby Pool—Everette, Kopel Oil 2.
Ralston, Sanson & Bowers 1.
Dearing, Watson Oil 3.
T. L. Gorby, Helper & Gorby 6.
M. S. Chamberlain, Lew J. Emery Jr. Sons 3.
Hatfield, J. J. Sayer 5.
Steffey 85-A, W. P. Harley & Co. 2.
John Matthews, J. W. Porter & Co. 1.
Beaver Creek—Maddox heirs, Harrington & Norris Bros. 2.
Etoll Area—C. S. Spradlin, Wood Oil 1.
Greer, Wood Oil 1.
Tompkinsville Road—Mattis, Baker & Co. 1.
Rock Hill Road—Petty, Sanson, Warner & Co. 1.
Knob Road—Harrison, Wiggins & Gillespie 4.
White, R. B. Tyler Co. 14.
Darter Bros., A. W. Ziegler Atty. 6.
Richardson, Star Oil & Gas 18.
Lecta Pool—Spence, Wiggins & Gillespie 1.
Morgan, Baird & DeCaigney 4.
Grady, Coombs & Co. 4.
Dean, H. E. Merrifield trustee 2.
C. B. Jones, Esslinger Oil 17.
Richardson Pool—Davidson, Houchins Leasehold 4.
Wildcats—Pace, Beeford Oil & Preston 2.
Gasson, Baker & Co. 2.
Johnson, J. E. Carpenter & Co. 1.
J. Matthews, Esslinger Oil 1.
Ed. Minnich, Harrington & Norris Bros. 1.
Sam Boles, Kentucky Pet. Synd. 1.
Verne Walker, J. H. Mann & Greenup 1.
Bedford, Norris Bros. Tyler & Co. 1.
McFarlin, Norris Bros. 1.
McCrory, Perkins Bros. 1.
Edmonds, T. J. Sanson & Co. 1.
Whitney, Stohr Bros. Oil Corp. 1.
Pace, Long & Dawson 1.
Toddy, Gassaway Bros. 1.
Wells drilling, 45.

OWENSBORO FIELD
(Hancock-Ohio-Daviess Counties)
Rigs

Owensboro—O. T. Burdette, D. J. White 1.
Lafe Payne 167-A, Newton Oil 1.

Wells Drilling

Owensboro-C—Banhan, Ohio Oil 1.
J. C. Ellis 204-A, Ohio Oil 2.
F. S. Crowe, Ohio Oil 1.
C. L. Phillips 78-A, Ohio Oil 1.
P. Cooper 112-A, Ohio Oil 1.
Jess Ambrose 100-A, Rex-Pyramid Oil 2.
J. U. Bartley, Wood Oil 3.
Cleora Whitenhill, Lewis Emery Jr. Son 1.
J. L. Phillips, Penn-Indiana Oil Synd. 4.
Guenther-Gant 134-A, Chicago Pet. Synd. 10.
J. B. Ellis 50-A, White Plains Oil & Gas 5.
W. T. Bickett, C. E. Daugherty 3.
Widow Crowe 153-A, C. E. Daugherty & Co. 14.
Will Howard 130-A, Pet. Extraction 1.
Pegram, Boyles, Towers & Co. 1.
W. S. Gabbard, Bert Thompson 3.
J. L. Trodgen, Johnson & Engle 1.
Red Hill School, C. C. Chrysler & Co. 1.
John Raymond, Leeper Oil 1.
W. A. Probus 37-A, Leeper Oil 3.
Coleman 80-A, George Randolph 1.
J. H. McDaniels, Surety Oil 4.
Allie Evans, Butte Dredging 6.
Wells drilling, 23.

CUMBERLAND-MONROE COUNTIES
Rigs

Hopewell Pool—Sand Lick, Barthold & Waddle 1.
Fulton Grider, Baird & Hickman 4.
J. H. Morgan, Baird & Hickman 3.
John Sharp, J. F. Bolinger 2.
Brockman, Wood-Haislet, McLennon & Co. 6, 7, 8.

Wells Drilling

Hopewell—Finnis Baker, Baird & Hickman 2.
S. Elliott, Crawford & Co. 2.
Hi. Jackman, Crawford & Co. 1.
Patterson, Phillipi & Co, 1.
John Sharp, J. F. Bolinger 1.
Burkesville—D. Garman, West & Co. 1.
Sulphur Creek—Davidson, Wilcox Bros. 1.
J. B. Riddle, Hook & McComas 2.
A. A. Huddleston, Southern Prod. & Ref. 11.
Bear Creek—J. M. Dickens, E. M. Treat & Co. 7.
Steel Fork—Sarah Schackles, Wilcox Bros. 3.
West Fork—C. T. Cheatham, Alta Oil 2.
Pulsey Creek—T. B. Hogan, W. S. Raydure & Son 1.
Kettle Creek—H. L. Blythe, Connell, Zook & Co. 2.
J. Jones, Graves Bros. & Co. 1.
Rigs, 7; wells drilling, 16, total, 22.

SIMPSON COUNTY
Well Drilling

Franklin—John Pearce, A. L. McMullen & Co. 3.

CASEY COUNTY
Rig

Near Avon—T. B. Hammonde, Col. Less Combest 1.

Well Drilling

Dunville—Ben Russell, Irwin & Anschutz 1.
Rig, 1; well drilling, 1; total, 2.

BUTLER COUNTY
Well Drilling

Morgantown—Evans, P. A. & B. A. Evans 1.

CLINTON COUNTY
Wells Drilling

Lillydale—James Scott, Owens, Long & Co. 1.
Shepley heirs, Delaney & Ewing 1.
Ed. Upchurch, Clinton Oil 2.
Pierce Bros., McClintock, Reid & Heckathorn 2.
Wells drilling, 4.

GRAYSON COUNTY
Wells Drilling

Leitchfield—George Kenser, Walter & Sam Chenault 1.
Carville, Robinson & Co. 1.
Jones, Robinson & Co. 1.
Wells drilling, 3.

MUHLENBERG COUNTY
Well Drilling

Penrod—S. E. Part County, Pet. Explor. 1.

WAYNE COUNTY
Wells Drilling

District 2—Miller Bros. Wood Oil 66.
Smith, Hogue & Coast 1.
District 3—Burnett heirs, D. A. Atkins 7
Steele Hrs., Beaver Pet. 12.
District 13—Hick Hrs., W. L. Souther 1.
Wells drilling, 5.

LEE-OWSLEY COUNTIES
Wells Drilling

District 18—Wylie Bryant, Cook & Co. 2
Flahaven Land, Ohio Oil 84.
District 36—Thos. Foreman, Rex-Pyramid Oil 1.
Thos. Foreman, Standard Oil of Ky. 1.
Thos. Foreman, C. R. Gross Trustee 2.
Baker, Watkins & Co. 1.
Wells drilling, 6.

ESTILL COUNTY
Wells Drilling

District 7—Frank Rogers, Mt. Springs Oil 7.
District 8—Joe Neal, Wood Oil 3.
Simp Horn, Superior Oil Corp. 25, 26
Dudley Alexander, Superior Oil Corp. 3.
Thos. Mitchell, Brehner & Adams 4.
Wells drilling, 6.

POWELL COUNTY
Well Drilling

District 15—John A. Rogers, W. O. Dunham 6.

WOLFE COUNTY
Wells Drilling

District 6—Spencer Hrs. Pet. Explor. 6.
District 9—Wm. Perry, Brenner & Adams 4.
W. S. Tutt, Fulks & DeJarnett 1.
Wells drilling, 3.

LAWRENCE-JOHNSON COUNTIES
Rig

District 1—Jack Priest, Hope Construction & Ref. 1.

Wells Drilling

District 22—W. W. Bailey, Garrison & Townsend 6.
Herbert Skaggs No. 2, Swiss Oil Corp. 5.
District 22-A—Martha Kelley, Swiss Oil Corp. 15.
District 22—Proctor Sparks, Swiss Oil Corp. 34.
Ezra Walters, Wheeler-Watkins Oil & Gas 5.
District 33—Nora Lemasters, J. M. Meek Trustee 4.
D. L. Skaggs, Hovis & Young 2.
Lena Hamilton, Cumberland Pet. 10.
Rigs, 1; wells drilling, 8; total, 9.

JOHNSON-MAGOFFIN COUNTIES
Rig

District 25—W. H. Collins, Pet. Explor. 3

Wells Drilling

District 25—Sam Conley, Ohio Oil 8.
L. C. Bailey, Cumberland Pet. 43.
District 27—Cholly Conley, Ky.-Indiana Oil Trust 7.
Sam Williams, S. J. Patrick 1.
Thos. P. Jones, Clyde Oil 3.
District 29—W. H. Conley, Bed Rock Pet. 30.
Mary Burke, R. G. Gillespie Estate 7.
Yearns Hale, R. G. Gillespie Estate 6
John Gardner, New Donmin Oil & Gas 14.
A. A. Almy, Cumberland Pet. 7.
T. J. Conley, Hudson & Collins 5.
Oscar S. Wheeler, Hudson & Collins 14
District 30—Lee Owens, Oliver Jenkins 2
Bracken Hrs. Phillips & Young 4.
F. M. Tackett, F. M. Tackett 2.
Pelphrey Hrs. Pelphrey Heirs 2.
Lee Owens, The Wilson Oil 6.
L. D. Holbrook, George & Touma 5.
District 31—W. E. Patrick, Bed Rock Pet. 5.
J. H. Arnett, Bed Rock Pet. 24.
R. L. Salyer No. 2, Burning Fork Synd. 3.
J. J. Pace, Hartman Oil 2.
J. M. Frazier, Short Fork Oil 4.
Mort Salyer, Hope Constr. & Ref. 1.
B. F. Whitt No. 1, Hupp, Duff & Chiles 4.
B. F. Whitt, No. 2, Hupp, Duff & Chiles 4.
Malcom Whitt, Hupp, Duff & Chiles 2.
Rigs, 1; wells drilling, 27; total, 28.

FLOYD-KNOTT COUNTIES

Wells Drilling
District 21—Sol Patton, Ivyton Oil & Gas 1.
C. Patton, Ivyton Oil & Gas 1.
Andy Coburn, Ivyton Oil & Gas 2.
M. V. Allen, Ivyton Oil & Gas 1.
Geo. Gearhart, Midas Gas 13.
W. P. Leslie, Eastern Carbon Black 5.
Wells drilling, 6.

KNOX COUNTY
Wells Drilling
Bailey Switch—Dizney, Dizney & McKee 1.
Sinking Creek—Foreman, Foreman Lumber 1.
Red Bird Creek—Beattyville parties 1.
Indian Creek Dome—Helton, Pet. Explor. 1.
Wells drilling, 4.

MORGAN COUNTY
Wells Drilling
District 6—T. L. Elam, Popping Rock Oil 2.
West Liberty—Pleasant Run, Jim Patton 1.
Blair Mills, Collier & Co. 1.
Wells drilling, 3.

ELLIOTT COUNTY
Rig
District 34—D. A. Lewis, Smith & Garrison 2.

Wells Drilling
District 34—J. M. Ison, Edra Lee Oil & Gas 4.
Lincoln Creek—Joe Wagner, J. M. McDonald 1.
Rocky Branch—Henderson, Eastern Gulf Oil Corp. 1.
Rigs, 1; wells drilling, 3; total, 4.

MENIFEE COUNTY
Wells Drilling
Leatherwood—Widow Reed, McKinney Bros. 1.
Hamp Rawlins, W. O. Bach 3.
Wells drilling, 2.

LAUREL COUNTY
Well Drilling
10 miles S.W. of London, Standard Oil of Ky. 1.

JACKSON COUNTY
Well Drilling
McKee—Isaac, Standard Oil of Ky. 1.

CARTER COUNTY
Wells Drilling
Smokey Creek—High Owens, R. A. Chiles 1.
Trough Camp Creek—Robbins & Watson 1.
Limstone—Carpenter Hrs. Hovis, Young & Marcum 1.
Wells drilling, 3.

M'CREARY COUNTY
Wells Drilling
Pleasant Run Creek—Asher, Sampson & Co. 1.
McCreary County Oil & Gas 1.
Wells drilling, 2.

TENNESSEE

CLAY COUNTY
Wells Drilling
Clark Hill Pool—A. T. Davis, Dixon, Bayless Douglas 3.
Kelley Thurman, Clarks Hill Oil 3.
J. M. Gray, Clarks Hill Oil 3.
Near Peterman Bend—Keisling, Miller & Co. 1.
On Knob Creek—E. S. Dalton, Unknown 1.
Lillydale—G. M. Gamewell, Owens, Long & Co. 1.
Fox Springs—Meyers, Owens, Long & Co. 1.
Near Timothy—Leech & Hunt 1.
Celina—Geo. Plumley, John H. Kerr 1.
Geo. Tinsley, Lewis & George 1.
Turkey Creek—Potter, Mendenthal & Co. 1.
Willow Grove—Widow Hargrave, Carnahan & Horn 2.
Jim Stover, A. A. Alexander 2.
Wells drilling, 13.

MORGAN COUNTY
Wells Drilling
Sunbright—Somers, Cockrell & Co. 1.
G.ades, Knoxville Parties 1.
Russell, Russell Producing 7.
Wells drilling, 3.

RUTHERFORD COUNTY
Well Drilling
Murfreesboro—G. H. Alsup, Rutherford County Oil & Gas 1.

MISSISSIPPI

FRANKLIN COUNTY
Rig
Jackson—Pear River, New York parties 1.

COPIAH COUNTY
Rig
Hazelhurst—Brandywine, Benj. W. White 1.

HOLMES COUNTY
Rig
Coxburg—Sec. 18-13-1. Free Run Oil 1.

LEAKE COUNTY
Rig
Near Conway—Chas. N. Haskell 1.

KOSCIUSKI COUNTY
Rig
At Alta—B. B. Jones 1.

CLAIBORNE COUNTY
Wells Drilling
Sec. 4-11-2—Young, Mississippi Explor. 1.
West Side County—Michael Zink 1.
Wells drilling, 2.

YAZOO COUNTY
Well Drilling
Sec. 25-13-1w—Reed, Wills & Burns 1.

HINDS COUNTY
Well Drilling
Jackson—Reeder, Johnson Oil 1.

WASHINGTON COUNTY
Well Drilling
Sec. 30-14-9—Allen, Williams Alhambra Oil 1.

TISHOMINGO COUNTY
Well Drilling
Iuka—Unknown 1.

TALLAHATCHIE COUNTY
Well Drilling
Sec. 23-25-2—Harvey, Shreveport, Louisiana parties 1.

MARSHALL COUNTY
Well Drilling
Sec. 3-32-3—Hoffman, Tom Slick 2.

MADISON COUNTY
Well Drilling
Unknown—Transcontinental Oil 1.

STONE COUNTY
Well Drilling
Near Magic City—Sec. 36-3-2, local parties 1.

ALABAMA

MORGAN COUNTY
Well Drilling
Sec. 6-6-4—English, Decatur Oil 1.

HALE COUNTY
Well Drilling
Greensburg—Hale Oil 1.

SHELBY COUNTY
Well Drilling
Chelsea—Scott, Cooksey & Co. 1.

WILSON COUNTY
Well Drilling
Selma—Blue Bell Oil 1.

FLORIDA

POLK COUNTY
Well Drilling
Sec. 40-32-27—West Frostproof L. & O. 1.

GLADES COUNTY
Wells Drilling
Sec. 15-39-.32—Brewton, H. McCurdy 1.
Sec. 5-38-32—Unknown, Langford & Co. 2.
Sec. 3-38-32—Unknown, Seminole Petroleum Corp. 3.
Wells drilling, 3.

JEFFERSON COUNTY
Well Drilling
Sec. 19-2-5e—Miller-Gossard, Southern States Oil Corp. 1.

MANATEE COUNTY
Rig
Sec. 15-34-17—Robinson, Speedwell Pet. Synd. 1.

DADE COUNTY
Well Drilling
Sec. 19-54-35—On Tamiami Trail, Miami Oil & Nat. Gas Corp. 1.

MONROE COUNTY
Rigs
Sec. 6-51-31—Florida Natural Resources 1.
35-34, Biscayne, Oil & Gas of Miami 1.
Rigs, 2.

LEON COUNTY
Well Drilling
Sec. 11-2-1e—Rhodes, Gulf Dev. Corp. 2.

HERNANDO COUNTY
Well Drilling
Sec. 20-23-19—Ayres, unknown 1.

PASCO COUNTY
Well Drilling
Sec. 29-25-16e—Green, unknown 1.

OKEECHOBEE COUNTY
Rig
Sec. 22-36-35—Opal district, Preston & Gaines 1.

ROCKY MOUNTAIN AREA

WYOMING

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Big Muddy	0	0	0	0	1	5	6
Salt Creek	27	2,079	1	0	17	97	114
Lance Creek	2	50	1	0	0	1	1
Big Horn Basin	2	560	1	0	2	57	59
Lost Soldier and Carbon Co.	3	450	0	0	3	30	33
Rock River district	2	100	1	0	0	7	7
Fremont Co.	0	0	0	0	0	29	29
Osage	0	0	0	0	2	4	6
Natrona Co.	2	180	1	0	0	8	8
Lincoln and Uintah Cos.	0	0	0	0	3	33	36
Baxter Basin	0	0	0	0	0	7	7
Miscellaneous	1	0	1	0	2	29	31
Total Oct.	39	3,419	6	0	30	307	337
Total Sept.	45	2,610	11	0	28	331	359
Difference	6	809	5	0	2	24	22

MONTANA

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Kevin Sunburst	48	971	22	0	14	65	79
Cat Creek and Miscellaneous	4	110	2	0	5	73	78
Total Oct.	52	1,081	24	0	19	138	157
Total Sept.	52	6,065	25	2	16	144	160
Difference	0	4,974	1	3	3	6	3

COLORADO

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total Oct.	8	410	2	0	13	107	120
Total Sept.	3	600	2	0	16	99	115
Difference	5	190	1	0	3	8	5

UTAH

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total Oct.	1	0	1	0	5	34	39
Total Sept.	0	0	0	0	6	32	38
Difference	1	0	1	0	1	2	1

NEW MEXICO

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total Oct.	13	425	6	0	7	143	150
Total Sept.	11	607	2	0	10	145	155
Difference	2	182	3	0	3	2	5

BIG MUDDY
Rigs
9-33-76 Humphrey, Continental Oil 42.
Wells Drilling
9-33-76 Humphrey, Continental Oil 41.
9-33-76 Crary, Texas Prod. 33.
9-33-76 Humphrey, Continental 39, 40.
3-33-76 Barber, Wyomont Oil Co. 2.
Rigs, 1; wells drilling, 5; total 6.

SALT CREEK
Rigs
32-40-78 Frantz, Continental Oil 22.
6-39-78 SE, Mt. & Gulf 8-A.
35-40-78 SE, Midwest Oil 31-A.
34-39-78 NW, Mammoth Oil 302.
34-39-78 NW, Mammoth Oil 305.
28-39-78 NW, Mammoth Oil 405.
28-39-78 NE, Mammoth Oil 406.
13-38-78 SW, Wyoming Teapot Oil Co.
16-39-78 NE, Nicolaysen et al.
19-40-78 NE, Morris Oil Co. 18-A.
10-38-78 NW, Mammoth Oil 302.
2-39-79 NE, Sinclair Wyoming 11.
6-39-78 NE, Mt. & Gulf 29-A.
31-39-78 SE, Teapot Devel. Co.
1-39-79 SE, Continental Oil 11-A.
5-39-78 NW, Carter Oil Co. 12-D.
17-39-78 SE, Argo Oil Co. 2-M.
Wells Drilling
23-40-79 NW, Wyoming Oil Fields 24-A.
25-40-79 NW, Wyoming Oil Fields 3-A.
23-40-79 NE, Wyoming Oil Fields 24-A.
26-40-79 NE, Wyoming Asso. 16-L.
26-40-79 NE, Wyoming Asso. 16-A.
23-40-79 SW, Wyoming Asso. 29.
23-40-79 SW, Wyoming Asso. 24-A.
26-40-79 NW, Wyoming Asso. 13-A.
25-40-79 NW, Wyoming Oil Fields 33-A.
14-40-79 SE, Wyoming Asso. 22.
26-40-79 NW, Wyoming Asso. 21-L.
26-40-79 NE, Wyoming Asso. 19-L.
26-40-79 NW, Wyoming Asso. 22-L.
26-40-79 SW, Wyoming Asso. 22-L.
26-40-79 NW, Wyoming Asso. 18-L.
23-40-79 SW, Wyoming Asso. 22-L.
26-40-79 NW, Wyoming Asso. 13-L.
23-40-79 SE, Wyoming Asso. 1-L.
26-40-79 SE, Wyoming Asso. 21-L.
3-39-79 NE, Salt Creek Cons. 1-L.
35-40-79 NE, Midwest Oil 18.
26-40-79 SW, Midwest Oil 18-L.
25-40-79 SW, Midwest Oil 16-L.
25-40-79 NW, Midwest Oil 22-L.
36-40-79 NW, Midwest & Wyo. Asso. 26-A.
36-40-79 SE, Midwest & Wyo. Asso. 19-A.
24-40-79 SW, Wyoming Asso. 18-L.
3-39-79 NE, Salt Creek Cons. 3-A.
35-40-79 NE, Midwest Oil 22-L.
34-40-79 NE, Midwest Oil 15-L.
16-40-79 H. W. Wyomont et al.
23-40-79 SW, Wyoming Oil Fields 4-A.
34-40-79 SE, Wyoming Asso. 1-L.
35-40-79 NW, Wyoming Asso. 31-L.
34-40-79 NE, Wyoming Asso. 36-L.
35-40-79 NW, Wyoming Asso. 15-L.
35-40-79 NW, Wyoming Asso. 6-L.
35-40-79 SE, Wyoming Asso. 4-L.
26-40-79 NE, Wyoming Asso. 20.
36-40-79 SW, Midwest & Wyo. Asso. 13-A.
23-40-79 SW, Wyoming Oil Fields 16.
14-40-79 SW, Wyoming Asso. 13.
24-40-79 SW, Wyoming Asso. 16.
26-40-79 NW, Wyoming Asso. 34.
26-40-79 NE, Wyoming Asso. 28.
26-40-79 NW, Wyoming Asso. 33.
34-40-79 NW, Wyoming Asso. 24.
35-40-79 SW, Midwest Oil 3 SD.
26-40-79 SW, Midwest Oil 15-L.
26-40-79 SW, Midwest Oil 3, 4.
35-40-79 NW, Midwest Oil 8-A.
7-39-78 SE, Continental Oil 8-A.
5-39-78 NW, Western States Oil & Land.
28-40-79 SW, Jupiter Oil Co. 34-S.
Shut Down
35-40-79 SW, Midwest Oil 13-L.
2-39-79 NW, Midwest Oil 6-L.
35-40-79 SW, Midwest Oil 6-L.
25-40-79 NW, Wyoming Oil Fields 19-L.
26-40-79 NE, Wyoming Asso. 4-L.
35-40-79 SW, Midwest Oil 31-L.
35-40-79 NE, Midwest Oil 16-L.
26-40-79 SW, Midwest Oil 18-L.
25-40-79 NW, Midwest Oil 31-L.
35-40-79 NE, Midwest Oil 16-L.
26-40-79 SE, Midwest Oil 1-L.
35-40-79 SW, Midwest Oil 31-L.
23-40-79 SW, Midwest Oil 1-L.
36-40-79 NE, Wyoming Oil Fields 36-L.
26-40-79 NE, Wyoming Asso. 4-L.
26-40-79 NE, Wyoming Oil Fields 22-L.
23-40-79 SE, Wyoming Oil Fields 6-L.
34-40-79 SE, Salt Creek Cons. 36-L.
26-40-79 NE, Wyoming Asso. 31-L.
23-40-79 SE, Midwest Oil 16-L.
23-40-79 NW, Wyoming Oil Fields 36-L.
2-38-78 SE, Staley Foley Synd. 34-A.
35-39-78 SW, Staley Foley Synd. 16-A.
26-40-79 SE, Wyoming Asso. 22-L.
10-40-79 SE, Empire State Oil 25-A.
28-39-78 NE, Mammoth Oil 101.
29-39-78 NE, Mammoth Oil 108.
28-39-78 NE, Mammoth Oil 302.
28-39-78 NW, Mammoth Oil 205.
4-38-78 NE, Mammoth Oil 101.
23-39-79 NE, Evans Oil Corp.
29-39-78 NE, Omaha Luck Oil Co.
6-39-78 NE, Mt. & Gulf Oil Co. 34-A.
32-40-78 SW, Jupiter Oil 27-A.
2-39-79 NW, Midwest Oil 15-L.
23-40-79 SE, Wyoming Oil Fields 4-L.
33-40-79 SW, Midwest Oil 34-L.
34-40-79 SW, Continental Oil 35-A.
23-40-79 SW, Wyoming Asso. 19-L.
34-40-79 NW, Wyoming Asso. 34-L.
2-39-79 NW, Midwest Oil 3-L.
23-40-79 SE, Wyoming Asso. 33-L.
Rigs, 17; wells drilling, 97; total, 114.

LANCE CREEK FIELD
Wells Drilling
Johnson Ranch, Wyo. Mont. Devel. Co. 1.
Rigs, 0; wells drilling, 1, total, 1.

BIG HORN BASIN
Rigs
36-43-91 State, Utah Oil Ref. Co. 2.
5-47-90 Hetzler, Ohio Oil Co.
Wells Drilling
2-44-96 F. A. McPherson.
3-56-98 Brown, Allen Oil Co. 2.
36-43-91 State, Utah Oil Ref. Co. 3.
5-48-90 Nowood, Carter Oil Co. 1.
8-51-100 Somers, Ohio Oil 3, 4.
15-55-97 Lot 43, Standard of California.
31-48-90 Tensleep, Ohio Oil 3.
31-58-90 Elk Basin, Midwest Ref. Co. 2.
5-43-90 Avery, Utah Oil Ref. Co. 1.
26-43-91 Ft. Collins, Utah Oil Ref. Co. 1.
35-43-91 Weller, Utah Oil Ref. Co. 2.
24-56-98 Garland, Producers & Ref. 2.
11-40-90 Garry Oil & Dev. Co.
15-49-91 Shaffer & Tilley.
18-46-92 Washakie, Ohio Oil 4.
18-44-93 West Zimmerman Butte Oil Co.
20-52-101 NE, Washington Oil & Gas.
14-47-102 Big Horn Dev. Co.
21-53-101 Taylor Brothers.
7-46-92 Washakie, Ohio Oil Co. 2.
5-51 97 SW, C. M. Carroll et al.
9-54-95 SW, Wisconsin Hines Co.
15-44-95 SW, F. L. Pierce.
19-54-93 Crystal Creek Synd.
32-47-100 NW, Prairie Oil & Gas Co.
19-46-98 State, Ohio Oil 41.
-56-98 Elk Buttes Oil & Gas Co.
34-43-91 SE, Union Oil Co. 1-A.
28-42-91 NW, Union Oil Co. 1-A.
31-43-93 Utah Oil Ref. Co. 3.
33-43-94 SW, Wyoming Montana Oil Co.
17-46-98 Washakie, Ohio Oil Co.
11-49-102 T. A. Stanclifte.
8-43-91 Murphy Dome, Producers & Ref. 1.
32-56-98 Cross Gas Co., Ohio Oil Co. 2.
9-46-101 Union Oil of California.
Shut Down
29-56-97 SW, Utah Southern Oil Co.
29-56-97 NE, Utah Southern Oil Co. 1.
28-44-95 NE, F. A. McPherson.
2-47-100 Midwest Ref. Co.
4-51-100 Florence Oil Co.
35-57-91 NE, American Indian Oil Co.
3-55-97 Griffin, Allen Oil Co.
31-45-99 NW, Kasoming Oil Co.
27-46-98 Rankin, Dickie Oil Co.
8-46-98 Big Horn Dev. Co.
19-51-92 Bruce Holding Co.
34-43-93 C. D. Markham et al.
10-54-95 SE, Westland Oil Co.
35-55-95 Westland Oil Co.
11-49-102 Omar Oil & Gas Co.
18-56-98 Tumador Oil Co.
19-51-92 Torchlight Oil Corp.
5-54-95 SW, Royal Oil & Ref. Co.
5-47-99 N. P., Henderson Pet. Co.
8-46-98 Grass Creek Prod. Co.
Rigs, 2; well drilling, 57, total, 59.

LOST SOLDIER AND CARBON COUNTIES
Rigs
2-26-90 Utah Oil Ref. Co. 6.
21-21-86 Producers & Ref. 1.
12-19-87 Mariand Oil Co.
Wells Drilling
29-26-87 Producers & Refiners 3.
29-26-87 Producers & Refiners 18.
25-26-87 Producers & Refiners 19.
11-26-90 Wyo.-Ill., Producers & Ref. 9.
11-26-90 Prairie Oil & Gas Co. 68-A.
11-26-90 Prairie Oil & Gas 73-A.
7-26-89 Producers & Refiners 5.
35-20-88 Producers & Refiners 2.
34-22-90 SW, A. A. Akers 1.
14-21-84 St. Mary's, Producers & Ref. 1.
3-27-90 Goode, Texas Prod. Co. 6.
16-26-88 General Pet. Co.
11-26-90 Prairie Oil & Gas 65-A.
11-26-90 Prairie Oil & Gas 71-A.
14-20-88 Lake Valley Oil Co.
30-26-87 Producers & Refiners 1.
25-26-88 Hughes Royalty Co.
Shut Down
28-21-86 Greenville, Producers & Ref.
36-26-88 SE, M. M. Armstrong.
23-26-87 SE, Marvin Oil Co.
3-26-90 Sand Hills Oil Co.
28-26-88 Govt. Land, Columbia Pet. Co.
4-26-90 SE, Sand Hills Pet. Co.
9-26-90 SE, Major Oil Co.
25-25-89 NW, E. K. Goode.
24-27-90 SW, Annabelle Wyoming.
21-26-89 Portland Wyoming 3.
29-26-86 Portland Wyoming 1, 2.
3-25-86 Gov. land, General Pet. Co. 2.
Rigs, 5; wells drilling, 30; total, 33.

ROCK RIVER DISTRICT
Wells Drilling
1-18-78 Dutton Creek, Midwest Ref. Co. 6-X.
34-20-78 SE. M. L. Lundy.
13-17-77 Quealy, Texas Prod. Co. 1.
Shut Down
12-16-74 SW, G. A. Briggs.
34-23-79 Central Pipeline Co.
10-18-77 Carbon County Oil Co.
12-27-77 McLaughlin et al.
Rigs, 0; wells drilling, 7, total, 7.

FREMONT COUNTY
Wells Drilling
13-28-93 Producers & Refiners 1.
30-2-2 Producers & Refiners 8.
22-6-101 Keenan, Texas Prod. Co. 1.
10-32-95 Producers & Refiners 5.
21-1-1 Bridger Oil Co.
19-27-95 Brimmer, Prairie Oil & Gas.
9-31-98 Martin F. Feild.
14-32-80 Meyers Pet. Co.
19-28-92 SE, Union Oil Co.
27-6-3 Kinney Coastal Oil Co.
21-1-1 Wyoming Syndicate.
14-32-95 NW, Riverton Prod. Co.
15-5-1 Carter, Union Oil Co.
30-1,2 William M. Campbell.
27-3,1 Lot 4, Pilot Butte O. & G. Co.
15-32-95 Texas Production Company.
17-33-94 Winter Baker Interests.
27-1-1 Garner, Union Oil Co.
29-32-98 Frank England Trustee.
Shut Down
36-37-94 Wyoming Syndicate.
6-6-2 SW, Union Oil Co.
16-26-95 Sage Creek Pet. 3.
28-27-95 Fremont County Pet.
32-6.2 Miles City Pet. Co.
3-1.2 NE, Teton Pet. Co.
4-31-98 Derby Dome Wyoming.
4-31-98 Burnside Oil Co.
24-32-95 Sael Oil Asso.
Rigs, 0; wells drilling, 29; total, 29.

OSAGE
Rigs
30-46-63 NE, Glenn Oil Co.
31-47-63 L. B. Hanson.
Wells Drilling
Fawcett Ranch, Harry Briggs et al.
42-46-63 Wyoming Oil & Gas Co.
Shut Down
10-45-61 Lenhart & Briggs.
8-46-63 Griffith Oil Co.
Rigs, 2; wells drilling, 4; total, 6.

NATRONA COUNTY
Wells Drilling
1-28-80 NE, Foreman et al.
3-33,83 Fargo Western 29.
13-33-80 Wheeler, Millard et al.
26-35-84 NW, Harris & White.
3-37-85 Notches, Midwest Ref. Co.
32-38-83 Wilson, Mariand Oil Co.
Shut Down
15-32-82 Bessemer Bend Dev. Co.
5-39-80 NW, Vernon Oil Co.
Rigs, 0; wells drilling, 8; total, 8.

LINCOLN AND UINTAH COUNTIES
Rigs
31-28-113 Tip Top Oil Co.
12-29-113 Cretaceous Oil Co.
4-26-113 Wyoming Reserve Oil Co.
Wells Drilling
9-29-113 Guy B. Hockett et al.
16-27-113 Good & Nutting.
34-27-113 Beneficial Oil Co.
27-27-113 SE, Beneficial Oil Co.
14-21-117 NE, Pioneer Oil Co.
30-15-118 NE, Stanburg Pet. Co.
22-27-113 NW, W. F. Akin et al.
27-27-113 Reese Oil Co.
36-27-113 SW, Squires Oil Co.
3-26.113 SW, Superior Oil Co.
26-27.113 NW, Wooten Interests.
3-26-113 NW, Mid States Oil Co.
Near Afton, Great Western Oil Co.
3-26-113 Fawcett McPherrin Interests.
15-26-113 Fawcett McPherrin Interests.
15-21-117 Pacific Properties Co.
6-15-118 Vulcan Oil Co.
9-26-113 Uintah-Transcontinental Oil.
17-27-113 SE, Western Slope Oil Co.
20-26-113 Murphy Davis Co.
35-27-113 Associated Producers Co.
31-15-118 Olsen & Zimmerman.
10-14-118 Wilcox-Henley.
12-15-118 Spring Valley Oil Co.
Shut Down
20-19-116 C. C. Conger et al.
32-19-110 Johnson, Granger Oil Co.
22-28-112 NE, Margaret Kay.
24-15-118 NE, Mrs. D. Connel 3.
22-26-113 Big Piney Oil Co.
4-26-113 Uintah Oil Co.
3-26.113 Wyoming Reserve Oil Co.

32-19-116 Conger et al.
8-26-113 Reese Oil Co.
Rigs, 3; wells drilling, 33; total, 36.

BAXTER BASIN

Wells Drilling

11-19-104 Producers & Refiner-Marland.

Shut Down

26-17-104 Associated Oil Co. 3.
23-17-104 Associated Oil Co.
24-17-104 SE, Montacal Oil.
8-16-104 SE, Montacal Oil.
30-18-104 Midwest Refining Co. 6AX.
27-27-104 Montacal Oil Co.
Rigs, 0; wells drilling, 7; total, 7.

MISCELLANEOUS

Rigs

Baggs Dome, M. M. Armstrong.
Agate Basin, Hollingsworth et al.

Wells Drilling

21-21-69 Ackard et al.
5-31-70 Criterion Oil Co.
28-47-67 Gose Oil Syndicate.
35-17-70 Horse Creek, Carter Oil Co.
17-47-82 Rider, Carter Oil Co.
21-48-82 Graham, Carter Oil Co.
17-46-82 R. C. Tarrant et al.
12-29-27 Platte Valley Drilling Co.
8-44-60 Briggs & Sartain.
5-51-67 C. M. Carroll et al.
28-42-79 Seattle Syndicate.
Guernsey District, Illinois Syndicate.
16-33-68 SW, Schuyler et al.
1-32-68 A. E. Mauft et al.
32-62-67 SW, Western Consol. Oil Co.
4-32-82 SE, Carl Sackett et al.
7-18-82 Fairway Oil Co.
24-26-62 Foreman et al.

Shut Down

24-49-64 Osage Trust Co.
31-50-69 Rosette Oil Co.
20-29-68 Nebraska Oil Co.
18-29-68 Glendo Oil Co.
1-44-61 Osage Trust Co.
9-41-80 Newcomb et al.
31-37-67 NW, Atlas Oil Co.
11-45-65 Reserve Oil Co.
28-47-65 Gose Syndicate.
35-48-64 Lilley, Pump Creek Oil & Gas.
13-26-66 A. E. Jacobs.
Rigs, 2; wells drilling, 29; total, 31.

MONTANA

CAT CREEK

Wells Drilling

11-15-29 Cooke-Coolidges.
12-15-29 NE, Standard of California 7.
12-15-28 Van Tassel, California Co.

Shut Down

23-14-28 Winnet Tacific Oil Co.
21-15-30 Masser, Kessling Oil Co.
1-15-29 Custer Oil Co.
9-15-29 Frantz Oil Corp.
36-16-28 Hardrock Oil Co.
5-15-29 Midwest Refg. Co.
7-15-29 NW, Hogan et al.
11-15-29 Fifty-Six Petro. Co.
15-15-30 Swartz et al.
18-16-28 Peerless Oil Co.
Rigs, 0; wells drilling, 13; total, 13.

KEVIN SUNBURST

Rigs

10-35-2 Bruins, Ohio Oil Co. 4.
23-35-2 Reeg, Ohio Oil Co. 5.
Lorensen, L. W. Hill 10.
15-32-1 NW, Sunburst Oil & Refg. Co.
21-32-1 Murrils, Carter Oil Co. 1.
17-33-1 Kassel, Carter Oil Co. 2.
7-33-1 Hocksprung, Carter Oil Co. 1.
8-34-2 SW, Hardrock Oil Co.
20-34-1 Zacher, Minot Oil Co.
22-35-2 Halter, L. W. Hill 6.
30-35-1 Maughans, Ohio Oil Co. 14.
29-35-1 Benton, Arrowhow Oil Co.
30-31-2 McBride, Canadian Oil Co.
17-31-1 Potlatch Oil Co.
15-34-1 Johnson, Ohio Oil Co. 2.

Wells Drilling

31-35-1 Byrne, Fulton Oil Co. 18.
23-35-2 Pewter, Homestake Exploration Co.
35-35-2 Abell, Ferdig Oil Co. 12.
34-35-2 Parker, California Co. 4.
27-35-2 Smoke, California Co. 6.
30-35-1 Emmons, Dakota Montana 17.
27-35-2 Lashbaugh, O'Neil Bros. 6.
31-35-1 Byrne, Rose Oil Co. 15.
15-34-1 Burwash, Minot No. 12 Oils.
22-35-2 Lorensen, L. W. Hill 9.
13-32-2 Peterson, Conrad-Edwards.
22-35-1 Kalispell-Coleman Oil Co. 1.
27-35-2 Lashbaugh, O'Neil Bros. 8, 9.
28-35-2 Lorensen, O'Neil Brothers-L. W. Hill 2.
22-35-2 M. M. Newman, California Co. 6.
14-35-2 Hagerty, Sunburst O. & G. 4.
19-35-1 Kalispell-Kevin, P. M. K. Oils 5.
1-32-2 Weir, Sunburst Oil & Refg. Co.
6-33-1 Holland, Carter Oil Co. 1.
27-34-2 Baker, Carter Oil Co. 1.
1-35-1 Berger, Sand Point Oil Co.
20-36-2 Loy, Oil Co.
11-37-2 S. Hart-Green.
20-34-1 Robert Smith Interests.
13-32-2 Broderick, Peterson et al.
28-36-2 Kalmont Oil Co.
36-33-2 State, Sunburst-Huston.
8-35-2 Gillis, Alberta Kevin Oil Co.
27-35-1 Kaston, Great Spirit Oil Co.
1-32-2 Sunburst Oil & Gas.
30-34-1 Clarence Prosise.
7-34-1 Carlson, Dakota Montana 2.
25-32-2 Knobes, Howe-McCormick.
25-35-2 Stannard, Wyomont O. & R. 8.
1-34-2 Steele, Oldsbury Syndicate.
7-35-1 Russel, Reservation Oil Co.
30-35-1 Standard, Rose Oil Co. 3.
9-32-2 Suhr, Sunburst Prod. Co.
34-34-2 NE, Frazier Oil Co.
8-34-2 Pittsburg Montana Oil Co.
32-36-2 Roundsley, Sunburst Oil & Gas.
24-32-1 Shelby Syndicate.
20-35-2 Halter, Sunburst Prod. Co.
18-34-1 Skinner, Creel et al.
32-35-1 Putnam, Perston Oil Co.
7-34-1 Harte, Russel et al.
30-35-1 Tri State Oil Co. 3.
35-35-2 Sunburst Oil & Gas.
22-35-2 SW, Lorensen et al.
29-35-1 Maughans, Sweeney Oil Co. 4.
17-35-2 Frazier, Rice Oil Co.
30-35-1 Stannard, Tri State Oil Co. 5.
1-34-2 Steele, Bruce Radigan 2.
8-34-2 Hurley, McDonald et al.
1-34-2 Fauce, McIntire Beckett.
26-36-3 Carroll, Red Top Oil Co.

Shut Down

17-34-2 Larson, Pondera Valley Oil Co.
28-35-1 Shelby Federal Miller.
23-33-1 Webb, Shelby Oil & Gas.
12-34-1 Petrreon, Lucky Forty Oil Co.
13-32-2 Campbell, Campbell Syndicate.
16-34-2 Rainbow Oil Co.
33-35-1 Devlin, Bottineau-Minot.
Rigs, 14; wells drilling, 65; total, 79.

MISCELLANEOUS

Rigs

5-12-25 Minn-Flatwillow Oil Co.
24-15-14 Fullerton Oil & Gas.
12-10-32 Hibbard Oil Co.
4-28-30 Mid-Continent Oil Co.
34-23-2 Rainbow Syndicate.

Wells Drilling

17-31-1 NW, Dunkirk Oil Co. 1.
3-22-3 NW, Elk Horn Oil Co. 2.
26- 9-21 NW, E. C. Ehlem.
17- 3-23 SE, McDermott et al.
34-22-1 Great Northern Mutual.
33-16-28 NW, Oakmont Petro. Co.
32- 4-16 SW, Empire Oil & Gas.
25- 1-21 NE, Linco Oil Co.
35-30-3 Hi-Land Oil Co.
12-22-2 Mann, Allen Oil Co.
7- 8-57 Wolf Creek, Calif.-Montana.
31-31-20 Mound Butte Oil Co. 1.
23- 1-21 Delmar Oil Co.
24- 1-21 Record Petro. Co.
36- 1-12 State, Springdale Oil Synd.
Medicine Hat, Roth Syndicate.
34-23-2 Allen Oil Co.
1-31-31 Big Dome Oil Co.
28- 8-45 Mound Butte Oil Co.
25-17-24 California Co.
21-37-5 Utah Western Petro. Co.
31- 7-21 Sw, Atlantic Petro. Co.
13- 8-2 Coal Ridge, Montana Oil & Gas Co.
34-16-28 H. H. Swartz, Jr.
9-31-19 California Co.

Shut Down

18-22-3 SW, Elk Horn Oil & Gas.
18- 2-23 Murray Brothers 4.
32-25-30 Butler Oil & Gas.
24-30-1 Continental Prod. Co.
17- 3-19 Snyder, Mid Northern Oil Co.
4-27-20 California Co.
20-24-1 McDonald et al.
3-27-8 Robinson et al.
McDonald Creek, Wilson Fisher 3.
32-36-2 Weill Syndicate.
7- 8-57 California Montana.
17- 2-18 NE, Gibson Land Co.
29-38-28 Glasgow Explor. Co.
25-12-1 Ainsworth, Neudigate Interests.
18-30-3 Great Northern Producers.
4- 2-25 SW, McMinnemin et al.
24-10-39 Jones et al.
2-26-2 Jones, M. M. Edwards.
5- 2-23 NE, American Indian Oil Co.
35-32-32 SW, Bowdoin Oil & Gas.
7-27-7 Circle Oil Co.
26-10-29 Stellar Oil & Gas.
32-30-2 Drake Oil Co.
18- 6-23 Minnemeir & Newman.
6-13-24 Fulton Oil Co.
7-21-1 Tri State Oil Co.
12-11-13 Kalispell Syndicate.
2-28-2 NE, Dry Fork Oil Co.
8- 4-22 Hoosier Oil Co.
24- 5-8 Potter Basin Oil & Gas.
10-18-2 NE, Moscow Idaho Oil Co.
24-14-25 NW, Henry Seibert.
6- 2-24 American Indian Oil Co.
9-10-38 SE, Stellar Oil & Gas.
5-35-1 NE, F. G. Ostland.
Rigs, 5; wells drilling, 60; total, 65.

COLORADO

Rigs

7- 6-86 Adair, Texas Prod. Co. 2.
7- 9-68 Dement, Union Oil Co. #1.
9-20-69 Griffith, Wallace Oil & Mining Co. 3.
10- 3-44 Yuma, Yuma Valley Oil Co.
1- 8-68 Morrel Petroleum Products Co.
17- 8-68 Ft. Collins Chief Oil Co.
29-10-68 American Petro. Co.
12-38-78 Green Mountain Petro. Co.
27- 2-70 Rainbow Oil Dev. Co.
31- 9-68 Midwest Oil & Gas Co.
26- 9-69 NW, Farrel et al.
36-10-68 State, Scheca Oil Co.
10-10-61 SE, Daugherty et al.

Wells Drilling

27- 3-94 Freeman, Texas Prod. Co. 1.
7- 9-68 Gault-Piatt, Union Oil Co. 3.
13-23-50 Ligget, Caddon Oil Co.
34- 4-92 Taylor, Marland Oil Co.
8- 6-86 Edwards, Texas Prod. Co.
5- 6-86 Irwin-Custarphen, Texas Prod. Co.
10-34-11 Dutton-Lightner.
33- 5-91 Knolton, Texas Prod. Co. 9.
33- 5-81 Knowlton, Texas Pro. Co. 10.
6- 6-86 Belle Dennis, Texas Prod. Co. 2.
15- 4-91 Pohlman, Texas Prod. Co. 1.
19- 8-68 Krause, Union Oil Co. 1.
30- 8-68 Johnson, Union Oil Co. 1.
31-10-68 Mitchell, Union Oil Co. 2.
7- 9-68 Stutchell, Union Oil Co. 2.
35-48-19 General Petro. Co.
30- 8-68 Whitaker-Blunck, Union Oil Co. 3.
18- 6.86 State, Texas Prod. Co. 2.
31- 2-102 Emerald, Texas Prod. Co. 3.
10- 4-91 Wick, Texas Prod. Co. 3.
16- 3-91 Henderson, Marland Oil Co.
30- 2-102 Rangeley, Midwest Refg. Co. 2.
30- 2-70 Spurgeon, Boulder Petro. Co.
34-17-70 Mutual Oil Dev. Co.
13- 1-48 Yuma, Yuma Oil Dev. Co.
23-33-12 Pulliman, Erdman et al.
32-33-12 Hutchinson, E. J. Miley.
8-20-68 Loy, Rosie Oil Co.
26- 8-68 State, Texas Petro. Co.
30-10-68 Buckeye, Union Oil Co. 3, 4.
6- 9-68 Scott, Union Oil Co. 2.
30- 8-68 Blunk, Union Oil Co. 2.
36- 9-68 State, Union Oil Co.
15-21-65 Union Oil of Colorado.
10-24-69 Panuco Exploration Co.
14- 1-68 Smith-Cutter Oil Co.
27-20-69 NW, Good Luck Oil Co.
22-12-100 William T. Morris et al.
1-20-70 Continental Oil Co. 573.
33- 5-91 Knowlton, Texas Prod. Co. 8.
22- 4-92 Parkinson, Midwest Refg. Co. 4
24- 2-103 Tidewater Associated Oil Co.
32- 1-70 Denies, Repollo Oil Co.
30-10-68 Plummer, Union Oil Co.
4- 6-59 Belmont Oil Co.
16-10-68 Buckeye, A. A. Rollestone Co.
28- 3-65 Watkins, Miller Oil Co.
24- 6.91 Patterson, Platee Valley Oil Co.
1- 2-68 Orison, Municipal Oil Co.
33- 8-69 NE, Hobart Petro. Co.
21-20-69 Majada Oil & Gas Co.
13-33-12 NW, W. H. Hall et al.
34-32-65 NoJack Oil Co.
8- 9-68 Warren, Union Oil of Colorado.
6- 7-68 Brown, Fifty-Fourt Oil Co.
13-33-13 Hall Murray Oil Co.
5- 8-103 Gypsy Oil Co.
4- 6-68 Webster, Douglass Oil Co.
5- 6-68 Majestic Oil Co.
4-32-67 Tulsa Oil Leasing Co.
34- 8-68 Ruff, Victory Oil Co.
9-12-68 Panuco Exploration Co.
1- 9-68 NW, Great Northern Oil Co.
30-27-45 NW, Lamar Oil Co.
24- 6-61 Patterson, Platte Valley Petro. Co.
12- 9-69 McCullam, Continental Oil Co.
16-21-65 Columbia Heights Oil Co.
8-17-67 John, Jr., Red Creek Oil Co.
Fremont County, Parkdale Oil & Gas.
28-28-52 South East Colorado Oil Co.
30-10-68 Warren, Poudre River Oil Co.
1- 8-68 Warren, Consolidated Oil Fields Co.
16-20-69 E. R. Goode et al 2.
17- 9-68 Elder, Farrel's Associates.
34- 9-69 Ruff, Equitable Oil Co.
8- 8-102 Smith, Sun Oil Co.
11- 4-8 H. H. Temple et al.
6-32-62 State, Bent County Oil & Gas.

Shut Down

5- 6-86 McNeill, Texas Prod. Co.
6- 6-86 Henry Dennis, Texas Prod. Co.
31-18-51 Mineral Exploration Co.
17- 5-64 Rog Ranch, Roland Oil Co.
35-22-65 NE, San Carlos Oil Co.
13- 8-69 Hoff, Centenial & Sunset.
23- 6-69 Wellington Oil Co.
3-32-12 Leidecker Petro. Co.
25- 1-69 Everhard, Boulder Oil Corp.
25-24-1 SW, Utah Southern Oil Co.
32-20-63 Baxter, Salida O. & R. Co. 2.
32- 2-69 NE, White River Dev. Co.
11- 1-44 Hildrith, Hessick Drilling Co.
28- 7-92 NE, Boyles Oil Co.
17-34-2 C. W. Kirkwood.
6- 8-102 Linquist, Midwest Refg. Co.
28-27-70 Gehrung, Sand Hills Oil Co.
32-21-61 Colorado Oil & Gas Co.
23- 6-69 Ruckvetter, Wellington Oil Corp.
19- 5-69 Alps, Gateway Oil Co.
23- 9-69 Waverly, Consolidated Oil Fields Co.
32-10-68 SE, Imperial Oil Co.
25- 8-68 NE, American Petro. Co.
24- 9-69 Hanna, Wellington Oil Co.
6- 7-68 NE, Bonner Oil Co.
17-17-64 NW, Peerless Oil Co.
4-45-16 Gilmore Oil Co.
23- 2-103 Rigby, Midwest Refg. Co.
Rigs, 13; wells drilling, 107; total, 120.

UTAH

Rigs

26-26-20 Shaffer, Midwest Refg. Co. 2.
32-26-21 Promel, Snowden McSweeney.
30-34-10 Elk Ridge, Hughes No. 1.
16-22-19 Armstrong Oil Co.
18-23-21 Crescent Dome Oil Co.

Wells Drilling

16-28-20 Hazelwood, Utah Southern & Equity Oil Co.
4-28-18 Western States Dev. Co.
12-30-20 Western States Dev. Co.
6-30-21 Empire Gas & Fuel Co.
34-25-21 Big Six Oil Co.
1-30-20 Utah Petro. Co.
8-26-22 Utah Oil Dev. Co.
4-22-19 SE, Crescent Eagle Oil Co.
31- 9-8 Utah Petro. Co.
15- 9-8 E. J. Raddatz.
27-41-19 Utah Southern Oil Co.
36-26-20 Shaffer, Midwest Refg. Co. 1.
19-22-21 Utah Oil Refg. Co.
36-40-90 Utah Oil Refg. Co. 2.
31-43-10 Utah Oil Refg. Co. 3.
16- 2-5 State, Western Empire Oil Co.
32-14-17 Monroe Oil Co.
23- 3-24 Clay Basin, Producers & Refiners 2.
17-27-20 Shaffer, Midwest Refg. 1.
23-14-92 Mt. States Petro. Co.
27-21-19 Western States Dev. Co.
4-19-25 Charles Orchard et al.

Shut Down

2-12-20 L. L. Travis
21-22-22 Hope Syndicate.
6-11-13 San Juan Dev. Co.
23-42-17 Monumental Oil Co.
12-19-13 Ute Petro. & Utah Southern.
13- 4-16 Castle Dale Oil Co.
27-16-4 Producers Oil Co.
Lakeside Dome, W. R. Holmes.
Diamond Fork, Frenko Utah Oil Co.
25-13-13 Utah Central Oil Co.
Diamond Fork, Gustaven Oil Co.
Roseli District, Lakeside Oil Co.
Rigs, 5; wells drilling, 34; total, 39.

NEW MEXICO

Rigs

16-17-32 State, Maljamar Oil Co.
9-30-11 F. G. McMahon et al.
19-36-34 SW, Sinclair & Fenton.
17-31-8 Huntington Park Oil Co.
10- 4-28 NW, Oliver Well.
5-18-28 State, Lever et al.
36- 1-21 Ingram, Navajo Oil Co.

Drilling

23- 3-13 SE, Pinos Wells Oil Corp.
23- 4-1 Seipple Oil Co.
9- 1-31 Pouder & Pomeroy.
20-31-1 Paul & Ache et al.
24- 7-29 Wells, Chio Oil Co.
32-16-30 Sellers, Ohio Oil Co. 1.
16-17-32 State, Maljamar Oil & Gas.
28-17-28 Navajo Oil Co. 2.
5-17-32 Mitchell, Maljamar Oil & Gas.
2-29-19 Rattlesnake, Continental Oil Co. 21.
2-29-19 Rattlesnake, Continental Oil Co. 20.
34-31-17 Chimney Rock, Continental Oil Co. 1.
28-18-28 Flynn, Welch & Yates 52.
32-18-28 Flynn, Welch & Yates 53.
29-18-28 Flynn, Welch & Yates 10.
2-18-27 Empire Gas & Fuel Co. 2.
17-18-28 State, Williams Petro. Co. 5.
34-17-33 Govt. Land, Texas Co. & H. D. B.
8-14-24 Henderson-Hall.
18-17-32 Mitchell, Ohio Oil Co. 1.
28-18-28 Toomey Allen, Ohio Oil Co. 7.
5-17-28 Govt. Land, New Mexico Oil Co.
22-18-34 State, McDonald et al.
11-16-32 SW, Caprock Oil Co.
15-11-26 NE, Rodgers et al.
30-14-9 New Mexico Royalty Co.
1-17-9 Santa Fe, Hurst et al.
22-17-31 NE, Skelly Oil Corp.
1-18-21 SE, Sullivan et al.
16- 8-27 Campbell, Colorado Gas & Fuel Co.
26- 6-3 Acme Oil Co.
32- 7-19 SW, California Exploration Co.
24-31-11 South West Dev. Co.
11-29-11 Ross, Bellmfield Realty Co.
8-29-9 Union Oil & Mining Co.
27-19-38 Govt. Land, Mesculero Petro. Co.
4-17-32 State, A. C. Bridges.
24-10-36 SE, Devites et al.
11- 3-32 Gurley, Contillon et al.
4- 1-30 NW, Capitan Oil Co.
8- 6-1 Navajo Oil Co.
10- 3-17 NW, Navajo Oil Co.
13- 6-2 Hub Oil Co.
25- 7-2 Curtis & Mays.
32- 7-10 Minerman et al.
10-29-24 Eureka Oil Co.
10-28-26 Moore, Bevins & James.
2-29-19 Rattlesnake, Continental Oil Co 17.
15-21-33 NW, Covert et al.
29-17-18 Wilson, Texas Prod. Co.
32- 4-6 McDonald, Ohio Oil Co.
39-20-10 Benedum & Trees.
29-16-10 Duke City Petro.
22-25-21 Embar Oil Co.
8-28-18 Tocito, Continental Oil Co.
5-17-28 SE, Miley Oil Co.
18- 7-21 Ventura Oil Co.
16-18-28 Compton-Hausefus-Lewellyn.
29- 1-21 Steel-Rhinesmith.
17-18-28 SW, Cummings No. 2.
4-18-28 SE, Pueblo Oil Co.
4-21-27 Olson, M. M. Miller.
15-29-11 Bloomfield Oil & Gas.
15-23-24 California Co.
16-29-11 SE, C. S. Ringle.
34-29-11 C. S. Ringle.
4-21-30 SW, Van Cleve & Kronen 2, 3.
24-10-27 NW, R. C. Christman.
8- 2-14 Simmons et al.
17-28-28 NW, W. G. Hurst.
9-10-28 SW, Danciger Bros.
33-17-20 SW, Wooley-Jones.
15-29-11 Butler-Stonacher Synd.
19-21-10 NE, F. A. Black Drilling Co.
25-17-26 Patterson & Stumpi.
15-15-29 Southern Exploration Co.
7 -19-1 La Ventana.
22-18-27 SE, Colorado Drilling Co.
18-18-28 NE, Sidler Drilling Co.
24-30-13 SW, Portage Oil & Gas.
19-18-29 Bujac-Wade-Murphy.
34-11-11 Garland, Congress Oil Co.
30-30-15 Bowman, Williams et al.
21-25-30 Sun Oil Co.
8-11-23 Gibson Oil Co.
16- 1-27 McAdoo, Navajo Oil Co.

Shut Down

21-17-30 McIntire, Wooley-Jones.
6-18-32 Walker, Maljamar Oil & Gas.
1-18-32 Stroup, Maljamar Oil & Gas.
3-17-32 Pearsall, Maljamar Oil & Gas.
13-18-32 McDonald & Jewett, Maljamar Oil & Gas.
14- 3-6 C. J. Staley et al.
34-23-21 Adders, Books Yetters Drilling Co.
5-18-27 NE, Swartz et al.
18-22-17 SE, Blue Bird Oil Co.
20- 7-1 Arnold et al.
17-20-11 SW, Hubbel & Hall.
12-30-11 Stein, Miley Oil Co.
3-13-14 State, Dysart et al.
21-14-9 S. Dysart et al.
12-11-11 S. Dysart et al 2.
16-12-15 State, S. Dysart et al.
11- 5-35 Sanders, Frio Oil Co.
32- 6-1 New Mexico Dev. Co.
26- 7-2 Swisher & Wallace.
27-17-16 Chebeauque Syndicate.
3-18-27 Mann Compton.
24- 8-23 SE, Lewis et al.
34-31-15 W. E. Childers.
1-17-9 Welch et al.
3-13-2 Williams, et al.
25-11-26 SW, N. Jones.
1- 6-27 SW, Steel-Rhinesmith.
9- 6-24 Grady Oil Co.
4- 2-20 Hinkle et al.
12-17-31 Nichols, Ohio Oil Co.
22-19-27 NW, Valley Oil Corp.
8-30-9 Huntington Park Oil Co.
31-19-28 Pruitt, Ohio Oil Co.
21-17-28 Johnson, Ohio Oil Co.
16-27-19 Navajo, Continental Oil Co. 7.
31- 3-15 NW, Wyo. Colo. Oil Co.
22-19-27 State, Oscar Howard.
21-30-11 Home Gas Co.
2-19-26 Peckenbaugh, Eureka Oil Co.
1- 3-32 NE, Gurley Oil Co.
24-21-11 SE, Angelus Mining Asso.
6-29-9 Detroit Oil Corp.
29-29-11 Montezuma Syndicate.
9-30-9 Rainbow Oil Co.
16-13-9 Melstead Oil Co.
25-13-21 Standard Petro. Co.
11-20-29 Rawson, William Dooley.
26-18-18 New Mexico Oil Co.
30-28-11 New Mexico-Milwaukee Synd.
23-18-15 E. M. Treat & Co.
28-18-28 SE, Quillen & Dunnet.
15-12-23 NW, Zeppenfeld Co.
16- 1-7 NE, Ft. Sumner Oil Co.
33-11-35 Tilton & Croft.
23-16-20 Young, Ohio Oil Co.
5-22-19 NE, F. A. Black Drilling Co. 2.
Rigs, 7; wells drilling, 143; total, 150.

WYOMING

Wells Completed

35-40-79 SE, Wyoming Asso. 21 SD.... dry
26-40-79 SW, Wyoming Asso. 31-L..... 200
23-40-79 SW, Wyoming Asso. 29-A..... 50
2-39-79 NE, Wyoming Asso. 26-A..... 30
35-40-79 NW, Wyoming Asso. 24-L..... 300
25-40-79 SW, Wyoming Asso. 31-A..... 75
3-39-79 NE, Salt Creek Cons. 1-A..... 35
31-40-78 NW, Salt Creek Cons. 9-A..... 50
14-40-79 SE, Midwest Oil Co. 15-A..... 30
27-40-79 SE, Midwest Oil Co. 30-AS... 40
23-40-79 SW, Midwest Oil Co. 3-A..... 30
23-40-79 NW, Midwest Oil Co. 33-A..... 85
35-40-79 SW, Midwest Oil Co. 21 50
12-40-79 SW, Midwest & Wyoming Asso. 14-A 25
35-40-79 SW, Midwest & Wyoming Asso. 13-A 140
36-40-79 NW, Midwest & Wyoming Asso, 6-A 40
1-39-79 NE, Midwest Oil Co. 8-A..... 30
36-40-79 SW, Midwest & Wyoming Asso. 4-A 40
36-40-79 NE, Midwest & Wyoming Asso. 29-A 50
36-40-79 SE, Midwest & Wyoming Asso. 11-A 50
35-40-79 NW, Wyoming Asso. 24 309
30-40-79 SW, Wyoming Asso. 26-A..... 40
25-40-79 NW, Wyoming Oil Fields 21-A 70
23-40-79 NW, Wyoming Oil Fields 34-A 40
35-40-79 SE, Wyoming Asso. 6-A..... 150
35-40-79 SW, Midwest Oil Co. 31-A.... 75
19-40-78 SW, Midwest Oil Co. 11-A.... 45
4-35-65 Putnam, Ohio Oil Co. 3..... 50
35-36-65 Buck Creek Oil & Gas..... dry
32-58-99 Tip No. 7, Hardrock Oil Co... dry
19-46-98 State, Ohio Oil Co. 42..... 560
2-26-90 Utah Oil Refg. Co. 5-A..... 200
3-26-90 Prairie Oil & Gas 72-A..... 150
11-26-90 Prairie Oil & Gas 47-A..... 100
8-17-77 Texas Prod. Co. ..... dry
2-19-78 H & C, Ohio Oil Co. 11..... 100
3-33-83 Fargo Western 28 180
10-35-85 New York Oil Co. 2..... dry

32-34-78 Geary Dome, Continental Oil Co. ..... dry

Production 3419
Wells completed 39
Dry 6

MONTANA
Wells Completed

14-34-2 Dachsteiner, Ohio Oil Co. .... dry
34-35-2 Reeg, Ohio Oil Co. 4 15
30-35-1 Maughan, Ohio Oil Co. 13.... 15
35-36-2 State, Homestake Exploration 16 20
35-35-2 Abell, Ferdig Oil Co. 11..... dry
15-34-2 Moffat, Ohio Oil Co. 1..... dry
13-34-2 Morton, Rice Oil Co. 3..... 10
34-35-2 Parker, California Co. 3..... 3
28-35-2 Lorenson, California Co. 4.... 20
10-34-1 Cagney, O'Neil Bros.-Marland dry
18-33-2 Halverson, Minot Shelby ..... dry
33-34-1 Sauby, Wells Oil Co. 1..... dry
18-34-1 Hanna, Queen City Oil Co.... 10
32-35-1 Putnam, Pan-Canadian 2 ..... dry
30-35-1 Stannard, Security Oil Co. 11. dry
30-35-1 Stannard, Security Oil Co. 12. dry
30-35-1 Stannard, Security Oil Co. 13. dry
8-34-1 Rooney, Mouse River Oil Co.. dry
29-35-1 Anderson, Red Deer Oil Co. 7 10
30-35-1 Allen, 31 Petro. Co. 3..... 50
29-35-1 Zacher, Big Six Oil Co..... 8
26-35-2 Abell, California Co. 8..... dry
1-34-2 Lewis, Ferdig Oil Co. 9..... dry
1-34-2 Lewis, Ferdig Oil Co. 10 ..... dry
26-35-3 Andrus, Rock-Maharg 40
11-35-2 Lind, Carter Oil Co. 3..... 50
27-35-2 Lashbaugh, Swift Current Oil Co. 3 30
26-35-3 John Andrus, Jr. 50
31-32-2 Orcutt, Zenith Oil Co. ..... dry
24-34-2 Morton, Gordon et al ..... dry
20-35-1 Zachor, Adams Oil Co. 1..... 5
28-35-1 Miller, Byroum Oil Co. 10
29-35-1 Anderson, Ferdig Oil Co. 6... 25
32-35-1 Caine, 56 Petro. Co. 19..... 30
32-35-1 Putnam, Tecumseh Oil Co. 3.. dry
1-34-2 Lewis, Ferdig Oil Co. 11 ... dry
13-34-2 Morton, Rice Oil Co. 16..... dry
31-35-1 Allen, 31 Petro. Co. 4..... 20
5-35-2 Bell Fey Co. ..... dry
30-35-1 Stannard, Barmac 4 50
10-35-2 Howling, Carter Oil Co. 2.... 25
36-35-1 Emmons, Dakota Montana 17. 10
29-35-1 Anderson, Ferdig-Treas. State 6 50
21-34-1 Adams, Potlatch Oil Co. ..... dry
24-34-1 Fulton Claypool 1 ..... dry
33-53-1 NW, Flickertail Oil Co. 1..... 200
22-35-2 Lorensen, L. W. Hill 8..... 200
23-35-2 Newman, California Co. 3.... 15
28-30-4 West Virginia Oil Co. 1..... dry
34- 1-21 Barnsdale, Record Petro. Co.. 80
26-11-24 Aerolite Oil Co. 30
13- 6-13 Mackay, Ohio Oil Co. 2..... dry

Wells complete 52
Production 1081
Dry 24

COLORADO
Wells Completed

28-35-2 SW. Wert Franklin et al..... dry
30- 8-68 Whitaker-Blunck, Union Oil Co. 2 130
9-20-69 Continental Oil Co. 576 ..... dry
Florence Field, Florence Oil Co. 90
18- 6-86 Quaintance, Texas Pro. Co. 2. 10
8- 9-68 Kitterman Dev. Co. ..... dry
7- 9-68 Yockey, Union Oil Co. 1..... 80
28-20-69 Travis-Raddatz Synd. 6 100

Wells completed 8
Production 410
Dry 3

UTAH
Wells Completed

35-21-16 Culbertson, Marland Oil Co... dry

Wells completed 1
Production 6
Dry 1

NEW MEXICO
Wells Completed

28-18-28 NE, Flynn, Welch & Yates 51 50
35-17-28 NW, Philips & Welch 1..... 10
21-18-28 Snowden-McSweeney 8 35
10-20-29 State, Cook-Ironsides ..... dry
3-27-17 Table Mesa, Continental Oil Co. 8 30
33-17-28 Pulcio Oil Co. 240
10-18-28 Dunn, Flynn, Welch & Yates 3 dry
15-18-28 Wians, Harris & Rhens 1.... 20
22-17-31 NE, Skelley Oil Corp. 40
25-31-18 Bartlett, Union Oil Co. 2..... dry
4-15-6 Jones, Marland Oil Co. 1..... dry
3-27-17 Table Mesa, Continental Oil Co. 10 ..... dry
9-19-28 Henderson, Dexter, Blair..... dry

Wells completed 13
Production 425
Dry 6

EASTERN FIELDS

Summary of Wells Completed

Fields—	Com.	Prod.	Dry	Gas
Allegany	40	67	..	..
Bradford	174	349	..	..
Middle Field	14	15	..	1
Venango-Clarion	41	32	7	4
Butler-Armstrong	14	38	2	2
S. W. Penna.	26	945	6	12
West Virginia	85	298	17	39
S. E. Ohio	124	1,201	21	26
Total Oct.	518	2,945	53	84
Totals Sept.	538	2,778	60	76
Difference	20	167	7	8

Summary of Work Under Way

Fields—	Rigs	Drg.	Ttl.
Allegany	12	34	46
Bradford	27	152	179
Middle Field	..	11	11
Venango-Clarion	2	22	24
Butler-Armstrong	19	9	28
S. W. Pa.	12	36	48
West Virginia	53	109	162
S. E. Ohio	51	134	185
Totals Oct. 31	176	507	683
Totals Sept. 30	179	547	726
Difference	3	40	43

WELLS COMPLETED

Allegany Field

Heseltine, Atwood & Stebbins..... 1
Fee, Empire, Ltd., and Breckenridge.... 1
Fee, Albert Oil..... 2
Reid Agt., Citizens National Bank of Wellsville No. 5..... 4
Fee, Empire, Ltd., et al..... 4
Fee, Empire, Ltd..... 2
Fee, Empire, Ltd..... water
Fee, Hill & Son..... 2
Birtcil, W. E. McMurdy et al..... 1
Fee, Isaac Willets estate..... 1
Fee, L. W. Shaner et al..... 2
South Penn Oil, A. D. Reeland et al.... water
Burdick, B. A. Vossler et al..... 1
Boyce, State Bank of Bolivar No. 14..... 1
Fee, J. E. LeSeur et al..... 1
Fee, J. W. Johnson et al..... 1
Fee, G. W. & Phebe Birtcil..... 1
Withey Estate, Withey & Reeland..... 2
Fee, Gilligan & Dermitt..... 2
Fee, L. C. Whitford et al..... 2
Fee, Hazelwood Oil..... 2
Fee, Mrs. C. E. Richardson..... 3
Coast et al., F. C. Shaner et al..... 3
Fee, William Bartoo et al..... 2
Fee, J. M. Hughes et al..... 4
Kinley Oil, W. J. Weller et al..... 2
Fee, C. H. Lavens estate et al..... 1
Kellar et al., Kellar & Kellar..... 2
Ballard, F. J. Wilson..... 1
Tract 1, Hazelwood Oil No. 45..... 1
Tract 1, Hazelwood Oil No. 50..... 1
Brandel heirs, N. V. V. Franchot Trustee 1
Fries, N. V. V. Franchot Trustee..... 2
F. D. & B., Black & Derby..... 1
Fee, Miller & Bovaird..... 2
McCaffery, McCaffery & First National Bank of Allegany..... 3
Fee, Harriet A. & G. W. Hooker..... 1
Carls, H. F. Carls & Sons..... 1
McQuire, M. J. Ball et al..... 1
Fee, Rehler Bros..... 1

Wells completed 40
Production 67
Water 2

Bradford Field

Kendall, South Penn Oil 57..... 2
Whipple, South Penn Oil 125..... 1
Dent, South Penn Oil 104..... 1
Taylor, South Penn Oil 38..... 1
Middaugh, South Penn Oil 50..... 1
Jones, South Penn Oil 216..... 1
Bing 151-154, South Penn Oil 32..... 2
Ent. Trans., South Penn Oil 68..... 1
Whipple, South Penn Oil 126..... 1
Rounds, South Penn Oil 57..... 2
Bing.-Satt., South Penn Oil 115..... 1
Bing. 400 Acres, South Penn Oil 71..... 1
Bing. 212, South Pen Oil 40..... 1
Smith, South Penn Oil 128..... 1
Smith, South Penn Oil 127..... 1
Culbertson lots, South Penn Oil 56..... 1
Bing.-Satt., South Penn Oil 110..... 2
Ware, South Penn Oil 81..... 1
Bing. 400 Acres, South Penn Oil 78..... 1
Bing. 423, South Penn Oil 15..... 1
Moody 66, South Penn Oil 02..... 0
Moody 54, South Penn Oil 42..... 2
Rew & Hodge, South Penn Oil 52..... 1
Smith, South Penn Oil 130..... 1
Tract 55, Hazelwood Oil 15..... 1
Tract 1, Hazelwood Oil 69..... 1
Tract 21, Hazelwood Oil 74..... 1
Tract 27, Hazelwood Oil 127..... 1
Tract 23, Hazelwood Oil 94..... 1
Vincent heirs, S. F. Elder et al 19..... 1
Bing. 388, C. L. Wann et al 53..... water
Rew, Bovaird & Hamlin 32..... 4
Bing. 380, Wilson & Fitzgibbon 81..... 2
Bing. 380, Wilson & Fitzgibbon 82..... 2
Bing. 429, Howard & McCallum 90..... 1
Bing. 430, Lame No. 1 et al 72..... 3
Bing. 401, J. E. Ward 17..... 2
Bing. 490, T. H. Kennedy No. 144..... 2
Bing. 369, D. W. Daly 60..... 1
Fee, Edwin Jack 47-48..... 3
Bing., Abrams et al 2-1 water..... 2
Bing., Rock Hill (2)..... 4
Fee, Dana Est..... 3
Bing., Grant & Mohan..... 3
Rounds & Lawrence, South Penn Oil 59..... 15
Fee, Forest Petroleum Corp. 1B1..... 2
Fee, Forest Petroleum Corp. 1A1..... 2
Fee, Forest Petroleum Corp. 1A18..... 1
Fee, Forest Petroleum Corp. 1A17..... 2
Fee, Forest Petroleum Corp. 1A2..... 2
Fee, M. C. Roat 8..... 2
Bartlett Estate, J. V. Golden 13..... 2
Burns et al, Crampf & McCandless 23..... 0
Fee, F. L. & F. J. Shippey 11..... dry
Fee, Ida F. & W. W. Slike 8..... 3
Fee, M. Hungiville 26..... 6
Clugston et al, Parker Farm Oil 11..... 2
Fee, F. M. Johnston & Son 23..... 1
Franchot, Thomas T. Fox 15..... 2
Fee, Hooker et al 8..... 3
Fee, Hazelwood Oil 50..... 3
Franchot, F. A. Wile et al 18..... 2
Franchot, E. R. Maxwell et al 15..... 2
Franchot, F. M. Johnston & Son 27..... 1
Fee, J. A. Walters estate 47..... 2
Franchot, Maxwell Bros. 10..... 2
Fee, Lawry & Huston 12..... 2
Griffith et al, C. N. Knabb, trustee..... 2
Fee, South Penn Oil..... 3
Fee, C. D. Kervin..... 2
Fee, South Penn Oil 42..... 2
Fee, Kaber & Coulter 43..... 1
Bing., Hazelwood Oil 127..... 2
Bing. 150, South Penn Oil 71..... 3
Fee, W. C. Kennedy Co. 55..... 4
Bing. 450, South Penn Oil 78..... 1
Fee, South Penn Oil 31..... 3
Bing. 151, South Penn Oil..... 3
Fee, Barry..... 2
Brown, Hungiville et al..... 2
Hedlund et al, Holmes Oil 2..... 1
Kennedy & Clarke, Phoenix Oil 165..... 10
Kennedy & Clarke, Phoenix Oil 166..... 10
Fee, South Penn Oil 188..... 3
Bing. 188, Harris Oil 34..... 1
Fee, Hilton Oil 36..... 8
Bing. 370, Hazelwood Oil 74..... 1
Bing. 582, Associated Producers 377..... 1
Bing. 533, South Penn Oil 84..... 1
Bing. 533, South Penn Oil 85..... 2
Bing. 494, South Penn Oil 55..... 4
Bing. 494, South Penn Oil 56..... 1
Bing. 501, South Penn Oil 17..... 1
Bing. 570, South Penn Oil 115..... 1
Meldrum, Wiborg et al..... 2
Meldrum, Wiborg et al..... 3
Mott, Reclamation..... 2
Mott, Reclamation..... 2
Baldwin, C. B. Kervin..... 1
Keating, Sloan & Zook..... 2
Keating, Sloan & Zook..... 2
Borden, A. J. Douglas et al..... 1
Middaugh, A. L. & L. M. Lilly..... 2
Middaugh, A. L. & L. M. Lilly..... 3
Womer, Batton & Wilson..... 2
Borden, C. J. Mitchell..... 3
Baldwin, F. E. Baldwin..... 1
Backus, C. B. Kervin..... 1
Borden, Pressure Oil..... 2
Borden, C. E. Piper..... 1
Hanes, Coast & Storms..... 3
Sprague, S. J. Sprague..... 9
Irvine, C. E. Potter..... 2
Gilfillan, Womer..... 2
Black, Burns Bros..... 2
Duke, Duke & Blair..... 2
Potter, J. E. & M. V. B. Ward..... 3
Duke, M. B. Oil (8 wells)..... 12
Gelpin, Simpson, Cooper et al..... water
Emerson, G. L. Rhodes et al..... 1
Elder, S. H. Elder & Co..... 3
Bingham, H. P. McKalip et al..... 3
Bingham, Paul Evans et al..... 2
Wright, Cotton & Moore..... 1
Sill, Hope Oil..... 1
Hodge, South Penn Oil..... 2
Whipple, South Penn Oil..... 2
Enterprise, South Penn Oil..... 8
Ekas, Lloyd & Piper..... 2
Ekas, Lloyd & Piper..... 1
Ekas, Lloyd & Piper..... 2
Rew, F. D. Gallup et al..... 2
Rew, F. D. Gallup et al..... 2
Monroe, Devore et al..... 1
Fee, W. J. Healy..... 2
Gormley, Korner Bros..... 1
Garlock, Denwood Oil..... 1
Murphy, Wilson et al..... 2
Germer, Linwood Oil..... 2
Jack, Howard & Jack et al..... 2
Campbell, Miller et al..... 2
Fee, Webb Est..... 2
Lovell, Towne, Melvin et al..... 3
Bingham, South Penn Oil..... 1
Taylor, South Penn Oil..... 2
Rew, Brink & Lincoln..... 3
Fee, G. Simpson..... 1
Willett, J. H. Gibson et al..... 2
Brennan, Coit Est..... 1
Corwin, Simon Bros..... 2
Corwin, L. H. Smith & Sons..... 1
Chamberlain, Bovaird et al..... 1
Chambers, Schorman & Williams..... 1
Borden fee, C. J. Mitchell..... 3
Campbell, N. V. V. Franchot, trustee..... 2
Rounds, J. W. Kaufman..... 2
Fee, North Branch Oil..... 1
Fee, George W. Smith Estate..... 2
Weston Jr., Rice et al..... 2
Fee, Mix Creek Oil..... 3
Fennell & Wommer, D. J. Moody..... 1
Hoffman Est., Bell & Loop..... 2

Wells completed 174
Production 349
Water 8

Middle Field

Phillips, J. L. Billstone..... gas
Yeagle, D. H. Jones..... 1
Osten, Rembold et al 10..... 2
Wilson, J. C. Goal & Son 23..... 2
Kehr, Haely Quinn et al 27..... 1
Kehr, Haely Quinn et al 26..... 1
Purucker, Fogle, Phillips et al 4..... 1
Purucker, Fogle, Phillips et al 5..... 1
Morris, Harrison Bros. 10..... 1
Fuller, Baylis & Bloss 4..... 1
Harrison, Moore, Fay & Harrison 4..... 1
Harrison, Moore, Fay & Harrison 5..... 1
Hummer, Gifford et al 1..... 1
Dennis, R. L. Thomas 18..... 1

Wells completed 14
Production 15
Gas 1

Venango-Clarion

Foster, James Foster 49..... 1
P. C. L. & P. Co., Fyle Price et al 60..... 1
Foster, H. C. Foster 59..... 1
Forter, Smith, Wilten et al 37..... 1
Cowan, Cross, Smiley et al 9..... 1
Nuhfer, Dempseytown Gas & Nuhfer 2. gas
Shawkey, Alum Rock Gas 2..... gas
Stubler heirs, Geo. Stubler acct. 2-6..... 1
Kapp, Alum Rock Gas 3..... dry
Fish heirs, T. G. H. S. Phinny 3... dry
Clark, Clark & Mong 3..... 1
Cox, George H. Torrey 3..... 2
Fisher, F. S. Gates 20..... 1
Hood, Monjar & McComb 89..... 1
Hood, Monjar & McComb 90..... 1
McCalmont 225 acres, S. P. McCalmont & Est. ..... dry
Schock, Holmes, Bell & Moyar 7..... dry
Grove, H. C. Graham 13..... 1
Porter, E. A. Burch et al 93..... 2
Miller, C. T. & O. D. McDowell 6..... 1
Monjar, Hoffman & McKinley 12..... 1
Irwin, Porter, Hoffman et al 2..... 1
Welton, Hoge, Porter et al 4..... 1
Paul Bros., Selia Sibley Wilson 23... abd
Frampton, O. & L., Oil City Nat. Bk. 13 1
McNellie, Midland Oil Corp. 23..... 1
Smith, Smith, Brutche et al 89..... 2
Splane & Co., W. W. Splane Est. 33... 1
Myers, Craig, Hoffman et al 15..... 1
Mercer—
Drake, Union Light & Trust 1..... gas
Shanner, Union Light & Heat 1..... 1
Crawford—
Deeter, S. O. Kennedy 1..... 1
Deeter, S. O. Kennedy 2..... 1
Clarion—
Cohlheep, S. R. Lewis et al 2..... gas
Schottenburg, Hess & Crawford 2..... dry
Myers, G. F. Myers 23..... 1
Buck, Vasey, Vensel et al 5..... 1
Stewart, Neely & Clover 4..... 1
Wolbert, Walter & Co. 1..... dry
Engle, Engle Oil & Gas 1..... 1
Forest—
Lot 44, Warrant 3179, South Penn Oil dry

Wells completed 41
Production 32
Dry 7
Gas 4
Abandoned 1

Butler-Armstrong

Neel, Dufford, Vensel et al 2..... 5
Powell, Roxbury & Co. 1..... 3
Shaner, M. B. Finnessy 18..... 3
A. Co. 1 & T. School, A. Co. 1. & T. School 5..... 10
Worley, J. A. Elliott et al 4..... 6
Ganns, Ritzert Bros. & Co. 1..... gas
Anderson, Crawford & Gregory 5..... 2
Campbell, M. W. Graham 8..... 2
McKinney, Edward McKinney 2..... 2
Jack, Sherwin & Burns 1..... 3
Griffith, E. C. Griffith..... dry
Wick, Est., Chambers Oil..... gas

Wells completed 14
Production 38
Dry 2
Gas 2

ALLEGANY FIELD
Rigs

Heseltine, Atwood & Stebbins.
Fee, Empire, Ltd., and Breckenridge.
Fee, Empire, Ltd., et al.
Fee, Empire Gas & Fuel, Ltd.
Fee, J. W. Johnson et al.
Fee, L. S. Shaner et al.
Fee, Isaac Willets estate.
Fee, McGiven et al.
Fee, L. C. Whitford.
Fee, Hazelwood Oil.
Fee, Martin Bros. & Sawyer.
South Penn Oil et al, First Trust, Wellsville.

Wells Drilling

Fee, Empire Gas & Fuel, Ltd.
Fee, Empire Gas & Fuel, Ltd.
Fee, Citizens Nat. Bank, Wellsville, No. 62.
Fee, G. W. & Phebe Birtcil.
Fee, E. G. Williams et al.
South Penn Oil, A. D. Reeland et al.
Birtcil, W. E. McMurdy et al.
Fee, C. W. Mead.
Fee, L. C. Whitford.
Coast et al, F. S. Shaner et al.
Whithey estate, Whithey & Reeland.
Kinley Oil, W. J. Weller et al.
Fee, Martin Bros. & Sawyer.
Fee, C. H. Lavens et al.
South Penn Oil, First Trust, Wellsville.
Fee, J. M. Hughes et al.
Fee, C. M. & W. L. Dunning.
Ballard, F. J. Wilson.
Tract 1, Hazelwood Oil 57.
Tract 1, Hazelwood Oil 58.
Fries, N. V. V. Franchot Trustee.
Brandel heirs, N. V. V. Franchot Trustee.
Zaph fee, Sepany Oil.
Fee, Kinley Oil.
Lippert, O. M. Lippert et al.
Multrus fee, C. M. Lippert et al.
Fee, Mary Lippert.
Warters, Ray Warters et al.
Ryan, M. Shear.
McCaffery & Westran, Mrs. H. S. Westran.
Carls, H. F. Carls & Sons.
Fee, Kinley Producers.
F. D. & B., James G. Paul et al.
F. D. & B., W. J. Fitzgerald.
Rigs, 12; wells drilling, 34; total, 46.

BRADFORD FIELD
Rigs

Rounds & Lawrence, South Penn Oil 60.
Fee, Forest Petroleum Corp. 1A33.
Fee, Forest Petroleum Corp. 1A44.
Fee, Forest Petroleum Corp. 1A23.
Fee, M. Hungiville 27.
Clugston et al, Parker Farm Oil 12.
Fee, Forest Oil Corp.
Fee, Forest Oil Corp.
Rutherford estate, Forest Oil Corp.
Fee, Kennedy Oil 57.
Bing., Hazelwood Oil 128, 129.
Bing. 151, South Penn Oil.
Hedlund et al, Holmes Oil 3.
Kennedy & Clark, Phoenix Oil 167.
Bing. 434, South Penn Oil 57, 58.
Bing. 380, Wilson & Fitzgibbon 84.
Bing. 490, T. H. Kennedy No. 2, 146.
Bing. 368, Wilson & Fitzgibbon No. 2, 11.
Bing. 497, Park & Bovaird 39.
Bing. 500, Daly & Healy 32.
Fee, A. L. Lilly estate.
Fee, Forest Oil.
Meldrum, Wiborg et al.
Baldwin, F. E. Baldwin.
Elder, S. H. Elder & Co.

Wells Drilling

Blair, South Penn Oil 614.
Dent, South Penn Oil 116.
Keating, South Penn Oil 74.
Hallock, South Penn Oil 97.
Kendall, South Penn Oil 58.
Jones, South Penn Oil 217.
Dent, South Penn Oil 105.
Middaugh, South Penn Oil 51.
Taylor, South Penn Oil 28.
Whipple, South Penn Oil 127.
Rounds, South Penn Oil 58.
Bing. 151-154, South Penn Oil 33.
Bing. 439, South Penn Oil 98.
Bing. 400 acres, South Penn Oil 74, 75, 76.
Bing. 533, South Penn Oil 85.
Smith, South Penn Oil 129, 131, 132.
Bing. 369, South Penn Oil 28.
Kane leases, South Penn Oil 109.
Bing. 212, South Penn Oil 41.
Bing.-Satt, South Penn Oil 117.
Bing. 501, South Penn Oil 04.
Bing. 411, R. M. & James George 2, 9.
Bing. 490, T. H. Kennedy No. 2, 146.
Bing. 391, George W. Bovaird 85.
Rew, Bovaird & Hamlin 33.
Bing. 389, T. W. Daly 45.
Bing. 380, Wilson & Fitzgibbon 838.
Moore, Pure Penn Oil, Inc., 12.
Bing. 296, Andrus & McDonald 105.
Lawton, Gallup Elder et al 27.
Lawton, Suhr, McSweeney & Co.
Fee, Forest Oil.
Fee, Flood Oil.
Bing., Abrams et al.
Bing., Rock Hill.
Bing., Elder & Redfield.
Fee, Dana estate.
Bing., Grant & Hohan.
Weston, Jr., South Penn Oil 97.
Fee, Forest Petroleum Corp. 1B5.
Fee, Forest Petroleum Corp. 1B2.
Fee, Forest Petroleum Corp. 1B11.
Fee, Forest Petroleum Corp. 1B12.
Fee, Forest Petroleum Corp. 1A25.
Fee, M. C. Roat 9.
Bartlett estate, J. V. Golden 14.
Nurns et al, Krampf & McCandless 24.
Rasey, Lewis Emery 23.
Fee, Quinn Bros. 45.
Franchot, Hooker et al 6.
Fee, Hazelwood Oil 51.
Fee, F. M. Johnston & Son 4.
Fee, L. G. Dana 22.
Franchot, Wile Bros. 5.
Fee, South Penn Oil 14.
Fee, Lawry & Huston 13.
South Penn Oil, John Jackson 16.
Franchot, Kriz et al 15.
Fee, Forest Oil Corp.
Fee, Forest Oil Corp.
Fee, South Penn Oil.
Fee, Anna Jane Van Tine 2.
Fee, South Penn Oil.
Fee, W. C. Kennedy Co. 56.
Bing. 150, South Penn Oil 74, 75, 76.
Fee, Hilliard & Dodge 21.
Fee, South Penn Oil 32.
Brown, Hungiville et al.
Miller, Bouton & Snyder 7.
South Penn Oil, E. K. Kane 44.
Kennedy & Clarke, South Penn Oil 109.
Bing. 486, Grant & Mohan 28.
Bing. 482, South Penn Oil.
Bing. 440, South Penn Oil 81.
Bing. 369, South Penn Oil 28.
Bing. 423, South Penn Oil.

Bing, 439, South Penn Oil 98.
Bing, 581, Associated Producers 379.
Bing.-Satt. 576, South Penn Oil 116.
Bing, 501, South Penn Oil.
Bing, 570, South Penn Oil 117.
Meldrum, Wiborg et al.
Baldwin, C. B. Kervin.
Keating, Sloan & Zook (2 wells).
Wommer, Patton & Wilson.
Baldwin, F. E. Baldwin.
Borden, Pressure Oil.
Borden, A. Schorman.
Allen, A. Schorman.
Kerly, Mullin.
Sprague, S. J. Sprague.
Irvine, C. E. Potter.
Kenyon, Minnich Est.
Gilfillan, Wommer.
Gelpin, Simpson, Cooper et al.
Black, Burns Bros.
Bingham, J. L. Verdon.
Wright, M. D. Wright et al.
Bingham, H. P. McKalip et al.
Bingham, H. E. Camp Est.
Sill, Hope Oil.
Hodge, South Penn Oil.
Whipple, South Penn Oil.
Enterprise, South Penn Oil.
Ekas, Lloyd & Piper (3 wells).
Rew, F. D. Gallup et al.
Fee, W. J. Healy.
Gormley, Korner Bros.
Garlock, Denwood Oil.
Murphy, Wilson et al.
Germer, Linwood Oil.
Bingham, Barry Bros.
Jack; Howard Jack et al.
Campbell, Miller et al.
Lovell, Towne Melvin et al.
Bingham, South Penn Oil.
Taylor, South Penn Oil.
Fee, G. Simpson.
Willett, J. H. Wilson et al.
Brenan, Coit Est.
Fee, W. C. Middlebrough.
Corwin, Simon Bros.
Corwin, L. H. Smith & Sons.
Mechan, A. J. VanTine.
Fee, B. Devlin.
Chamberlain, Bovaird et al.
Taylor, Forest Oil (3 wells).
Fisher, Forest Oil (3 wells).
Willett, I. Willett Est.
Looker, Petroleum Reclamation.
Weston, May Rock Oil.
Weston, Rice et al.
Campbell, N. V. F. Franchot Trustee.
Fee, North Branch Oil.
Fee, Curtis & Dunlavey Bros.
Fennell & Wommer, D. J. Moody.
Hoffman estate, L. S. Letson et al.
Hoffman estate, Bell & Loop.
Foo, Pollock & Pollock.
Fee, Mix Creek Oil.
Rigs, 27; wells drilling, 152; total, 179.

MIDDLE FIELD
Wells Drilling

Lot 3767, F. J. Moser 33.
Lot 269, Pennsylvania Gas 946.
Yeagle, D. H. Jones.
Rogers, F. H. Trax.
Lot 49, Lesser & Launer.
Brennan, E. Pequignot 1.
Osgood, Rembold et al 13.
Kehr, Haely Quinn et al 28.
Dunlap, Baylis & Bloss 7.
Waites, E. A. Rigby 8.
Ulf, Fidelity Petroleum 1.
Wells drilling, 11.

VENANGO-CLARION
Rigs

McCalmont 225a, S. P. McCalmont Est. 81.
Clarion—
Stewart, Neeley & Clover 5.
Wells Drilling
Foster, H. C. Foster 60.
Latchaw, H. M. & F. C. Smith et al 12.
Keverline, United Natural Gas 3763.
Kapp, Kapp Bros. 3.
McKissick, Passauer & Isherwood 2.
Cox, George H. Torrey 4.
Zimmerman, Adam, H. T. & W. T. Zimmerman 8.
Cassidy, Franklin Trust 5.
Edinger, Hovis, Porter et al 6.
McNellie, Midland Oil Corp. 24.
Crawford, Crawford, Gregory, Woodburn Acct. & Co. 80.
Clees, P. F. Clees 5.
Mercer—
Shanner, Union Light & Heat 2
Clarion—
McCleary, C. P. McCleary 3.
Knappenberger, Rhodes Cropp et al 1.
Neely, Alum Rock Gas 1.
Neely, T. L. Mong 1.
Myers, G. P. Myers 24.
Ochs, United Natural Gas 1.
Ochs, Schill, Judy et al 1.
Karl, S. R. Lewis et al 2.
Deetz, N. T. Shorts et al 1.
Rigs, 2; wells drilling, 22; total, 24.

BUTLER-ARMSTRONG
Rigs

Behm, C. H. Behm & Co. 1.
Neel, J. E. Dufford & Co. 1.
Ball, Gettman & Co. 1.
Shroup, Charles Hildebrand 5.
Dunlap, Ritzert Bros. & Co. 1.
McMillan, Garing & McMillan 1.
Deiter, Deiter & Co. 1.
Elliott, Sam Sherwin 1.
Grimmer Bros., Southern Oil 4.
North Pgh. Realty Co., Wm. Pfeifer et al 1.
Rahiser, M. Garvin et al 1.
Senty, Martin Sypher 1.
Logan heirs, Jos. Berry et al 1.
Marshall, R. A. Marshall 1.
Smith, D. Smith et al 1.
Boggs heirs, R. & W. V. Binkerd.
Morgan, I. N. Johns.
Bovard, Robinson & Berry.
McKinney, Edward McKinney 3.
Wells Drilling
Wagner heirs, E. C. Hatcher et al 6.
Bortz, McKees Rock Oil 1.
Kramer, Southern Oil 6.
Schnauffer, A. & B. Oil 2.
McKinney, Pinkerton et al 1.
Jordan, McCormick & Co. 1.
Bachman, Hinchberger & Co. 1.
Oesterling, M. Waltman et al 1.
Jack, Sherwin & Burns 1.
Rigs, 19; wells drilling, 9; total, 28.

WEST VIRGINIA
Wells Completed

Lewis County—
Wells, Carnegie Gas Co. 1 ..... gas
Upshur County—
Racing, Carnegie Gas Co. 1 1

Harrison County—
Rogers, Hoffmire & Deegan 2 ..... dry
Williams, Johnson & Co. 2 ..... gas
Williams, Clifton Oil Co. 4 ..... gas
Lynch, Hope Gas Co. 1 ..... gas
Lowther, Hope C. & R. Co. 1 ..... gas
Marion County—
Moore, Phila. Gas Co. 1 ..... gas
Monongalia County—
Hennen, Mfrs. L. & H. Co. 1 ..... gas
White, Clovis O. & G. Trust Co. 1 ..... gas
Wright, Carnegie Gas Co. 1 ..... gas
Shuman, Carnegie Gas Co. 3 ..... gas
Wetzel and Tyler Counties—
Church, Maple Pitt Gas Co. 1 ..... gas
Mixenbaugh, Bell Bros. 1 ..... dry
Bartrug & Co., Pgh. & W. Va. G. Co. 3 gas
Cornwell, American O. & F. Co. 2 ..... gas
Miller, Hope C. & R. Co. 2 ..... gas
Marshall County—
Earnest, Mfrs. L. & H. Co. 1 ..... gas
Marsison, Burgess & Co. 1 ..... dry
Howard hrs., G. F. Patterson 2 ..... gas
Baker, Decem. Dev. Co. 1 ..... dry
Doddridge County—
Smith, Eastern Union Gas Co. 1..... gas
Yeater, Mfrs. L. & H. Co. 2 ..... gas
Freeman, Clifton O. & G. Co. 14 5
Ritchie County—
Wilson, Carnegie Gas Co. 3 ..... dry
E. C. Wilson, Spruce O. & G. Co. 2 ... gas
Hall, Auburn Oil Co. 2 ..... dry
McGill, Pgh. & W. Va. G. Co. 1 ..... gas
Britton, Carnegie Gas Co. 4 5
Leggett, Pgh. & W. Va. G. Co. 2 ..... gas
Batson, Carnegie Gas Co. 2 ..... dry
Dotson, Nay & Kintzer 1 ..... dry
Miller hrs., Chemical Oil Co. 3 ..... gas
White, Maxwell & Charter 1 ..... gas
Kearns, Mellon Bros. 1 ..... gas
Templeton, Swingle Oil Co. 1 ..... gas
Sharp, Elder & Co. 1 ..... dry
Bowie hrs., Meadow Run Oil Co. 4 25
Maze, American Dev. Oil Co, 3 ..... dry
Gilmer County—
Stalnaker, Phila. Oil Co. 2 ..... dry
Morris hrs., Britton Bros. 1 ..... dry
Wirt County—
Rathbone Oil Tract, Roberts Bros. 148 1
Braxton County—
Bennett, Phila. Oil Co. 1 ..... dry
Wood County —
Greene, Hoglan Oil Co. 3 ..... dry
Albright, So. P. O. Co. 3 15
Moore, Four S. O. & G. Co. 1 1
Marshall, Pleasant Hill Oil Co. 1..... 3
Goodwin, Forest Cline 1 5
Pleasants County—
Evans, W. H. Wingrove 5 1
Hollo, Conley & Co. 1 3
Hammett, Bickel & Son 3 1
Templeton, Ambler Oil Co. 1 40
Bowie, Rinegart & Co. 1 15
Bradford, Rice O. & G. Co. 1 3
Roane County—
Haynes, Chartiers Oil Co. 1 ..... gas
Burroughs, Heck Oil Co. 4 5
Conley, Heck Oil Co. 4 10
Calhoun County—
Ferce, Kingsburry & Dallman 1 ..... gas
Parsons, Hope C. & R. Co. 2 5
Lincoln County—
Miles, Tampico O. & G. Co. 1 ..... dry
H. C. L. & M. Co., U. F. G. Co. 3..... gas
Alderson, E. R. Cameron 1 ..... gas
Gillenwater, Meaborn & Co. 5 5
Kanawha County—
Wood, U. F. G. Co. 1 ..... gas
Mullin, U. F. G. Co. 1 ..... gas
Shamblin, U. F. G. Co. ..... gas
Boone County—
Peytonia C. & L. Co., Owens B. & M 10 dry
Hopkins, Halstead & Co. 1 ..... gas
Logan County—
Dingess Run C. Co., Woctock O. & G. Co 14 ..... gas
Y. & C. Coal Co., Woctock O. & G. Co. 2 gas
Cole-Crane, Hope Gas Co. 3 ..... gas
Bone, Pure Oil Co. 1 ..... gas
Cole, Crane, Zonheimer & Gibbs 1 ..... dry
Cabell County—
Chambers, Chambers O. & G. Co. 1 .. gas
Mingo County—
Red Jacket Coal Co., Red Jacket Coal Co. 1 ..... gas
L. C. C. Co., Old Colony Oil Co. 19 .. 2

Wells Completed	85
Production	298
Dry	17
Gas	39

LEWIS COUNTY
Rigs

Parsonage lot, Frey & Co. 1.
Wells Drilling
Davisson, Mud Lick O. & G. Co. 2.
Bennett, Pgh. & W. Va. G. Co. 1.
Grant, Reserve Gas Co. 1.

UPSHUR COUNTY
Rigs

Hammer, French Creek O. & G. Co. 1.
Wells Drilling
McQuain, Carnegie Gas Co. 1.
Heavener, Union Gas Co. 2.

HARRISON COUNTY
Rigs

Ehrson, Varner & Co. 1.
Delan, Grasselli Chem. Co. 1.
Williams, Hoffmier & Deegan 1.
Wells Drilling
Bramer, Clarksburg L. & H. Co. 2.
Hudson hrs., G. L. Cabot 1.
Underwood, Dennison & Co. 1.
Riffee, Hope Gas Co. 1.
Stenstreet, Hope C. & R. Co. 1.
Lowndes, Patterson Fork O. & G. Co. 17.
Smith Bros., Reserve Gas Co. 1.
Fitro, S. L. Horner 1.
Johnson, Bridgeport O. & G. Co. 1.

MARION COUNTY
Rigs

Moffett, Monros & Co. 1.
Wells Drilling
Haught, Carnegie Gas Co. 1.
Snyder, Owens B. & M. Co. 1.
School lot, Tennant Bros. 1.
Clayton, Owens B. & M. Co. 2.
Snyder-Metz, Clifton O. & G. Co. 1.

MONONGALIA COUNTY
Wells Drilling
Tennant, Pgh. & W. Va. G. Co. 1.
Moore, Pgh. & W. Va. G. Co. 1.
Clovis, Mfrs. L. & H. Co. 2.
Wilson, Carnegie Gas Co. 3.

WETZEL AND TYLER COUNTIES
Rigs

Funk, Mfrs. L. & H. Co. 1.
Ritter, Hope C. & R. Co. 7.
Eddy, McIntyre Bros. Oil Co. 1.
Price, Shimwell O. & G. Co. 1.
Morgan, Carr Bros. 1.
Mill, Richwood Oil Co. 14.
Hixenbaugh hrs., Mfrs. L. & H. Co. 2.
Whistler, Maxon Oil Co. 1.
McGinnis, H. L. Lambert 88.
Wells Drilling
Jolliffe, Wilson & Co. 2.
Wade, Carnegie Gas Co. 3.
Abrigg, Carnegie Gas Co. 4.
Riter, Hope C. & R. Co. 1.
Burley, Silver Hill Oil Co. 1.
Stump, Mfrs. L. & H. Co. 2.
Lough, Mfrs. L. & H. Co. 1.
Hostettler, Carnegie Gas Co. 2.
Six, Francis O. & G. Co. 1.
Kennedy, Maxon Oil Co. 1.
Barteug, Pgh. & W. Va. G. Co. 4.
Yocum, Myers O. & G. Co. 1.

MARSHALL COUNTY
Rigs

Campbell, Conaway & Co. 1.
Jochum, Spider O. & G. Co. 1.
Fry, Mfrs. L. & H. Co. 2.
Cole, Carnegie Gas Co. 3.
Wells Drilling
Boner, Decem. Dev. Co. 2.
McCuskey hrs., Waynesburg Gas Co. 2.
Newman, Wood & Co. 1.
Thomas hrs., Mfrs. L. & H. Co. 3.

DODDRIDGE COUNTY
Rigs

Stuttler, W. B. Gribble 1.
Noble, Trainer & Travis 1.
Six, Hope C. & R. Co. 1.
Wells Drilling
Ford, Buckeye O. & G. Co. 1.
Fleming, Murphy Oil Co. 1.
Bland, Columbian Carbon Co. 2.
Ross, Trainer & Travis 1.
Robinson, G. W. Travis 1.
Ahouse, Mfrs. L. & H. Co. 1.

RITCHIE COUNTY
Rigs

W. Va. Tract, Whitewood Oil Co. 29.
W. Va. Tract, R. G. Wiles 6.
Mitchell, Rinerat & Co. 1.
Barker hrs., Valley Gas Co. 1.
Mullinax Bros., Loomis & Co. 2.
Wells Drilling
Nutter, Pgh. & W. Va. G. Co. 3.
Williams, Phila. Oil Co. 1.
Boyce, Local parties 1.
McCosh hrs., Wilson & Co. 1.
Camden, Hope Gas Co. 1.
Stanley, Hope Gas Co. 1.
White, Maxwell & Co. 1.
Straburg Realty Co., Asron Oil Co. 5.
Bickel, Jr., Bickel, Jr. 4.
Amos, Hope C. & R. Co. 1.
Swisher, Deem & Co. 1.
Lemon, Victor Pet. Co. 14.
Vincent, Vincent & Co. 1.
Melone, Rinehart & Co. 5.
Metts hrs., Starcher & Co. 3.
Singler, Deem & Co. 1.
Wilson, The Oil & Gas Co. 1.

GILMER COUNTY
Rigs

Tierney, Jas. Tierney 3.
Donley, McCall Drilling Co. 1.
Morris, Britton Bros. 1.
Upton, Mill Fork O. & G. Co. 2.
Morris, Britton Bros. 2.
Stump, Chartiers Oil Co. 2.
Wells Drilling
Davis, Pgh. & W. Va. G. Co. 1.
Winemiller, McCall & Co. 2.
Alcock hrs., Black & Co. 4.

CLAY COUNTY
Rigs

Stockly, So. P. O. Co. 41, 43.
Hicks, So. P. O. Co. 3.
James Reed, Ohio Fuel Oil Co. 3.
J. and J. L. Reed, Ohio Fuel Co. 1.
B. S. G. S., West Virginia G. & O. Co. 18.
B. S. G. O., West Virginia G. & O. Co. 5, 6.
Lockhart, West Virginia G. & O. Co. 4, 5.
Wells Drilling
Stockly, So. P. O. Co. 38, 42, 43.
Hicks, So. P. O. Co. 2.
Caston 220-A, Ohio Fuel Oil Co. 14.
Caston 260-A, Virginian G. & O. Co. 14.
B. S. G. & G., Virginian G. & O. Co. 17.
B. S. G. & O., Virginian G. & O. Co. 3.
Lockhart, Virginian G. & O. Co. 3.
Gross, Virginian G. & O. Co. 1.
Samples, Chalmers O. & G. Co. 3.

WIRT COUNTY
Wells Drilling
Roberts & Co., Federal O. & G. Co. 33.
Rathbone Oil Tract, Roberts Bros. 149.

BRAXTON COUNTY
Well Drilling
Nowell, Philadelphia Co. 1.

WOOD COUNTY
Rigs

Kennedy, Dan Kelly 7.
Frazier, Earle & Co. 2.
Wells Drilling
Drake, Big Run O. Co. 36.
Ralston, E. A. Sweeny 1.
Wharton, So. P. O. Co. 5.
Howard, So. P. O. Co. 2 & Co. 1.
Brant, Congdon & Woodyard 12.
Blewer, Four S. Oil Co. 1.
Coplin, Coplin Farm O. Co. 3.
Rapp heirs, H. Peevy 4.

PLEASANTS COUNTY
Rigs

Wilson, Smith & Co. 1.
Wells Drilling
Gale heirs, Samuel & Gale 13.
Stursberg, C. D. Watson 1.
Cooke, Emerson Oil Co. 28.
Ingram, Fisher Oil Co. 1.
Seadden, Flanigan & Co. 1.
Wrick, Wagner & Co. 1.

ROANE COUNTY
Rig

Huffman, Central O. & G. Co. 1.
Wells Drilling
Summers, Clifton O. & G. Co. 15.
Simmons-Depew, U. F. G. Co. 1.
Davis, Green Creek O. & G. Co. 1.
Larch-Koontz, Green Creek O. & G. Co. 1.
Stewart heirs, Heck Oil Co. 3.
Williams, Heck Oil Co. 1.
Keffer heirs, G. L. Cabot 2.
Lewis, U. F. G. Co. 1.
Church Lot, Geary O. & G. Co. 1.
Shamlin, U. F. G. Co. 1.
Smith, Elkins O. & G. Co. 2.
Ogden, W. W. and R. K. Ogden 1.

CALHOUN COUNTY
Rigs

Richards, Chemical O. & G. Co. 1.
Jarvis, G. L. Cabot 1.
Francis-Gainer, White Pine O. & G. Co. 1.

TAYLOR COUNTY
Well Drilling
Morrow, McGrady & Co. 1.

LINCOLN COUNTY
Rig
Alderson, E. R. Cameron 3.
Wells Drilling
Horse Creek L. & M. Co., U. F. G. Co. 3, 4, 5, 6, 7.
Brewer, So. P. O. Co. 2.
Breadlove, Ray & Osborne 1.
Cooper, Union O. & G. Co. 2.
Sweetland, Co. 1. G. & E. Co. 4, 5.
Sias, Ray McCombis 2.
Alderson, E. R. Cameron 2.

KANAWHA COUNTY
Rigs
Osborne, U. F. G. Co. 1.
White, U. F. G. Co. 1.
Wells Drilling
Littlepage, U. F. G. Co. 1.
Smith heirs, U. F. G. Co. 1.
Tawney, U. F. G. Co. 1.
Foreman, U. F. G. Co. 1.

BOONE COUNTY
Wells Drilling
Hill, Downing Gas Co. 1.
Williams Coal Co., Pure Oil Co. 229, 228.
L. P. & R. Tract B., Pure Oil Co. 22.
Federal Coal Co., Pure Oil Co. 7.
L. R. & P., Pure Oil Co. 27.
Federal Coal Co., Pure Oil Co. 13, 16.
Anderson, Owens B. & M. Co. 1.
Linville, Owens B. & M. Co. 2.
Ester, Owens B. & M. Co. 1.
Cassingham, Owens B. & M. Co. 13.

LOGAN COUNTY
Well Drilling
Yawkey-Freeman, Woctock O. & G. Co. 1.

PUTNAM COUNTY
Wells Drilling
Marcum, Kirtley & Keller 1.
Chapman, Ellis & Adkins 2.

CABELL COUNTY
Wells Drilling
Walker, Aetna O. & G. Co. 1.
Beckett, Harshbarger O. & G. Co. 10.
Finley, Monickel Gas Co. 1.
Wetherholt, Farr & Figley 1.

MINGO COUNTY
Well Drilling
Logan Cannel Coal Co., Old Colony Oil Co. 20, 21.

CLAY COUNTY
Stockley, So. P. O. Co. 34, 10.
Stockley, So. P. O. Co. 36, 10.
Stockley, So. P. O. Co. 37, 10.
Stockley, So. P. O. Co. 39, 40.
Stockley, So. P. O. Co. 40, 15.
Hicke, So. P. O. Co. 1, 20.
B. S. G. & G., West Virginian G. & O. Co. 15, 12.
B. S. G. & O., West Virginian G. & O. Co. 2, 13.
Lockhart, West Virginia G. & O. Co. 2, 8.
Closterman estate, Old Colony Oil Co. 12.

WAYNE COUNTY
Wells Drilling
Colwell, Old Colony Oil Co. 2.
Barton, Chartiers Oil Co. 2.
Rigs, 53; wells drilling, 109; total, 185.

SOUTHWEST PENNSYLVANIA
Wells Completed

Washington County—
Taylor, Carnegie Gas Co. 1 ..... gas
Rankin, Dallmyer & Co. 1 ..... dry
Allegheny County—
Mohn, Altoona O. & G. Co. 2 3
Beaver County—
Tuttle, Reed & Co. 1 1
Richards, Reed & Co. 1 ..... gas
Greene County—
Neill, Carnegie Gas Co. 1 ..... gas
Dunkard O. & G. Co., Vance & Co. 1 .. dry
Garard, J. L. Garard 6 ..... dry
Lemley hrs., Fox O. & G. Co. 2 3
Clovis, So. P. O. Co. 3 ..... gas
Eddy, So. P. O. Co. 3 ..... gas
Brooks, Raymond Oil Co. 8 ..... dry
Jacobs & Co., Phila. Oil Co. 7 10
Waters, Mfrs. L. & H. Co. 1 ..... gas
Cooper, Mfrs. L. & H. Co. 2 ..... gas
Alfred Rutan, Consumers Fuel Co. 2 5
J. S. Rutan, Consumers Fuel Co. 2 833
Shape, Carnegie Gas Co. 1 ..... dry
Reese, Carnegie Gas Co. 1 ..... gas
J. S. Rutan, Carnegie Gas Co. 4 ..... gas
Tripp, Carnegie Gas Co. 1 ..... dry
Baldwin, Carnegie Gas Co. 1 ..... gas
T. F. Rutan, N. G. Co. of W. Va. 5... 125
T. F. Rutan, N. G. Co. of W. Va. 6... 60
Reese, Moore & Co. 1 ..... gas
Headley, Greensboro Gas Co. 1 ..... gas

Wells Completed	26
Production	945
Dry	6
Gas	12

WASHINGTON COUNTY
Rigs

Russell hrs., Philadelphia Gas Co. 1.
Sleith hrs., Dallmyer & Co. 1.
Akren hrs., Walters & Co. 1.
Cowden Gas Co., Ord Cowden 1.
Wells Drilling
Rankin hrs., Cowden Gas Co. 1.
Krickenger, Book & Thomassy 2.

ALLEGHENY COUNTY
Rigs
Grinner Bros., Wildwood Oil Co. 2.
Rogers, Wildwood Oil Co. 3.
Wells Drilling
Bliss-Hansell, Waley & Co. 1.
Cruson, Duncan & Co. 1.
Clinton Coal Co., McCullough & Sons 1.
Fisher, Harbison & Co. 1.
Mohn, Altoona O. & G. Co. 4.
Wagner, Purdy Bros. 1.

BEAVER COUNTY
Wells Drilling
Marquette, R. B. Abrams 5.
Beheit, McCarty & Co. 1.

GREENE COUNTY
Rigs
Caseman, Caseman O. & G. Co. 1.
Headlee, So. P. O. Co. 3.
Pethtel, Carnegie Gas Co. 1.
White, Mfrs. L. & H. Co. 2.
Powers, N. G. Co. of W. Va. 4.
Funk, So. P. O. Co. 1.
Wells Drilling
Lemley, Carnegie Gas Co. 2.
Kiger, Carnegie Gas Co. 1.
Cumberland C. Co., Carnegie Gas Co. 1.
Long, Carnegie Gas Co. 1.

Titus, Vance & Co. 1.
L. Lemley, Martin O. & G. Co. 1.
Johns, Phila. Gas Co. 1.
Fox, Phila. Gas Co. 1.
Hagan, McCracken & Co. 1.
Fordyce, Stanley, Clovis & Co. 1.
Eakin, Mfrs. L. & H. Co. 3.
Cummins, Peoples Gas Co. 1.
Parson, Carnegie Gas Co. 2.
Huffman, Phila. Oil Co. 2.
Anderson, Consumers Fuel Co. 2, 3, 4.
Power, Consumers Fuel Co. 1.
Rutan, Carnegie Gas Co. 3, 5.
Moniger, Neal O. & G. Co. 1.
T. F. Rutan, N. G. Co. of W. Va. 7.
Ernest, Mfrs. L. & H. Co. 1.
Evans, Mfrs. L. & H. Co. 1.
Estel, Covert Bros. & Co. 1.
Rigs, 12; wells drilling, 36; total, 48.

SOUTHEASTERN OHIO
Wells Completed

Monroe County—
Pryor, Sylvian O. & G. Co. 3 2
Perry County—
Keller Bros. & Co., George Roberts 26 .. dry
Adcock, Pure Oil Co. 1 ..... dry
Stoltz, Stoltz O. & G. Assn. 1 ..... dry
Hocking County—
Stone, Gordon Oil Co. 5 155
Hite, Graham & Co. 9 ..... gas
Bowlby, Cohen & Co. 1 ..... gas
Mowery, Maysville O. & G. Co. 2 15
Roby, Jewell O. & G. Co. 1 5
Barthlow, Consolidated O. & G. Co. 1.. 5
Lasley, Pure Oil Co. 2 45
Woodruff hrs., Adair & Sturm 1 ..... gas
Dawley hrs., Bell & Shull 1 20
Chambers, Gordon Oil Co. 1 40
Holmes County—
Allison, East Ohio Gas Co. 1 50
Groffs, East Ohio Gas Co. 1 ..... dry
Cullens, Kemrow Co. 1 25
Snyder, Pure Oil Co. 2 15
Mohr, East Ohio Gas Co. 1 ..... dry
Patterson, Leonard O. & G. Co. 1 ..... gas
Allison, Kemrow Co. 1 ..... gas
GUERNSEY COUNTY—
Shriver, Ohio Fuel Gas Co. 1 ..... dry
McWilliams, Ohio Fuel Gas Co. 2 ..... dry
Nice, Ohio Fuel Gas Co. 1 ..... gas
Taylor, Ohio Fuel Gas Co. 1 8
Crossly, Ohio Fuel Gas Co. 1 6
Simmons, Ohio Fuel Gas Co. 1 20
Milligen, Ohio Fuel Gas Co. 1 ..... gas
Anderson, Ohio Fuel Gas Co. 1 ..... gas
Hawes, Ohio Fuel Gas Co. 1. ..... gas
Oliver, Ohio Fuel Gas Co. 1 ..... gas
Clark, Pure Oil Co. 1 ..... gas
Booth, Logan Gas Co. 1 ..... gas
Oliver, Logan Gas Co. 2 ..... gas
Booth, Logan Gas Co. 1 ..... gas
Morrison, Withmer, trustee 3 ..... gas
Broom, Cambridge Glass Co. 1 ..... gas
Anker, Cambridge Glass Co. 1 ..... gas
Oliver, Ohio Oil Co. 2 ..... gas
Ruby, Ohio Oil Co. 2 ..... gas
W. O. Oliver, Ohio Oil Co. 1 ..... gas
Wiscarver, Ohio Oil Co. 1 ..... gas
Broom, McCullem & Blackston 1 ..... gas
Gill, Pollock & Co. 1 ..... gas
Stephens & Co., Dare & Co. 1 ..... dry
Balof, Bales & Co. 1 ..... dry
Ratchison, White Eye O. & G. Co. 5 ... 5
Prockrig, Kemrow Oil Co. 1 ..... dry
Licking County—
Phillips, Hope C. & R. Co. 4 110
Mayberry-Mead, Mead & Co. 1 45
Montgomery, Ark. Fuel Oil Co. 4 50
McKee, E. H. Everett 2 125
Osborne, Ohio F. S. Co. 1 ..... dry
Ferry, Ohio F. S. Co. 10 10
Ferry, Ohio F. S. Co. 11 4
Ferry, Ohio F. S. Co. 12 3
Ferry, Ohio F. S. Co. 13 1
Harshbarger, Ohio F. S. Co. 6 4
McKinney, Rugg & Co. 11 40
E. McKinney, North Fork Oil Co. 31 ... 10
Harshbarger, Ohio F. S. Co. 7 5
Vanwinkle & Co., Preston Oil Co. 3 ... 145
Moran, Leonard O. & G. Co. 3 8
Nolan, S. C. Brown 2 7
Vanwinkle, Goshen Oil Co. 3 9
Chaney, Guy Shafer 3 7
Moran, Ohio F. S. Co. 1 ..... dry
Hoover Bros., Leonard O. & G. Co. 5... 5
Dugan, Ark. Fuel Oil Co. 18 4
Gutridge, Bishop, Hazlett & Co. 6 1
Claypool, Wehrle & Co. 1 ..... gas
Karner, Hope C. & R. Co. 1 20
Hickey, Hope C. & R. Co. 1 20
Srumm, Pure Oil Co. 1 5
Muskingum County—
Garner, Hope C. & R. Co. 1 20
Coshocton County—
McKelvey, Ohio Oil Co. 1 ..... gas
Knox County—
Heaton, Pure Oil Co. 3 ..... dry
Morgan County—
Hughes, Pure Oil Co. 9 10
Hughes, Pure Oil Co. 7 5
Fye, Pure Oil Co. 3 3
Newsanner, Pure Oil Co. 5 20
Bush, Pure Oil Co. 5 8
Vinton and Athens Counties—
Walburn, Gordon Oil Co. 2 2
Dearth, Reeghly & Shafer 2 1
Blackwood, Nezum & Co. 1 ..... dry
Hawk, Ark. Fuel Oil Co. 1 2
Wilkes, Athenon O. & G. Co. 3 3
Wood, Ronhausen & Co. 6 6
Beckley, Co-Operative Oil Co. 3 2
Dana, Clark & Co. 1 3
Parkins, Gordon Oil Co. 1 2
Townsend, Beeghley & Shafer 1 5
Hewitt, Sharon O. & G. Co. 1 2
Walker, Cook & Co. 2 2
Queen, Townson & Watkins Oil Co. 1.. gas
State Lands, Athens State O. & G. Co. 4 gas
Noble County—
Harper & Co., Michael & Co. 7 2
Radcliff, Young & Co. 1 3
Davis, Jewell & Co. 3 2
Meigs County—
Yost hrs., Pure Oil Co. 6 8
Salser, Ohio F. S. Co. 2 5
Nolter, Lebow & Co. 4 5
Washington County—
Stephens, Henderson Oil Co. 56 5
Little, G. W. Kesselring 20 5
Reynolds, Wright & Co. 1 ..... dry
Adkins, Patterson & Co. 1 1
Huntsman, Henning & Co. 2 10
Good & Co., Good & Co. 2 ..... dry
Good & Co., Good & Co. 3 2
Close, Parkersburg Oil Co. 6 3
Dye Bros., Henderson Oil Co. 6 5
Bennett, Sheets Run Oil Co. 1 ..... dry
Kiggins, Grau & Co. 4 ..... dry
Hupp-Murray, Beeson & Athey 12 ..... dry
Schramm, Clymer & Co. 6 5
Pfaff, Nat'l. Bank of Lowell 18 5
Chandler, Henning & Co. 5 50
Benninger, Edward Becker 1 5
Belmont County—
Ferguson & Co., N. G. Co. of W. Va. 5.. dry
Jefferson County—
Brown & Co., Torrence hrs. 1 ..... gas
Brotton, Saling & Co. 2 2
Russell, Russell & Co. 1 ..... dry
Cubbon, Cooper hrs. 2 1
Columbiana County—
Yaggi hrs., Yaggi hrs. 1 1

Wells Completed 124
Production 1201
Dry 11
Gas 26

MONROE COUNTY
Wells Drilling
Bruce, Stoffle & Co. 1.

PERRY COUNTY
Rigs
Cookson, Ralph Bros. 2.
Bowers, Leonard O. & G. Co. 2.
Wells Drilling
Christ, Ohio F. S. Co. 1.
Christ, Planet Oil & Gas Co. 5.
Matt, C. C. Milliard 1
Sunday C'K. C. Co., Sunday C'K. C. Co. 140
Franklin Bank, Ohio F. S. Co. 6.
Driggs, Leonard O. & G. Co. 1.
Togue hrs., Pure Oil Co. 1.
Golf, Wallsmith & Co. 1.
Fitch, Leonard O. & G. Co. 1.
Bennett, Nash & Co. 1.
Pettit, Guyenheim & Co. 1.
Yager, Wehrle & Daley 1.

HOCKING COUNTY
Rigs
Thrush, Rauber O. & G. Co. 2.
Pierpont, Pierpont & Co. 4.
Tucker, Griffin Prod Co. 1.
McClelland, Ohio F. S. Co. 1.
Hartsel, Golden Rod Oil Co. 1.
Wells Drilling
Thrush, Gordon Oil Co. 2.
Thrush, Rauber O. & G. Co. 1.
Tracy Estate, Kachelmacher Est. 23.
H. V. P. Co., Chartiers Oil Co. 201, 202.
Cobb-Bradley, Squire & Co. 12.
Marlow O. & G. Co., Griffin Prod. Co. 6.
Linton, Preston Oil Co. 2.
Elder, Elder Oil Co. 1.
Skinner, Kingstone Oil Co. 1.
Sudlow, Raccoon Oil Co. 14.

HOLMES COUNTY
Rigs
Shuler, Palmer & Co. 2.
Tidball, Kemrow Co. 1.
Miller, Pure Oil Co. 3, 4.
Roby, East Ohio Gas Co. 1.
Allison, East Ohio Gas Co. 2.
Mohler, East Ohio Gas Co. 1.
Gribb, East Ohio Gas Co. 3.
Doty, East Ohio Gas Co. 1.
Keyser hrs., Reno Oil Co. 3.
Wells Drilling.
Shuler, Burton & Co. 1.
Miller, East Ohio Gas Co. 1.
McCullough, East Ohio Gas Co. 1.
Sowash, East Ohio Gas Co. 5.
Smith, Pure Oil Co. 2.
Bricker, Kemrow Co. 1.
Allison, East Ohio Gas Co. 1.
Purdy, East Ohio Gas Co. 1.
Beller, Kemrow Co. 1.
Allison, Kemrow Co. 1.
Smitheiser, Ohio Oil Co. 1.
Hanna, Empire G. & F. Co. 2, 3.
Nethrow, Empire G. & F. Co. 3.
Donnell, Empire G. & F. Co. 2.
Bilderbeck, Empire G. & F. Co. 1.
Close, Pure Oil Co. 4.
Stouse, East Ohio Gas Co. 1.

GUERNSEY COUNTY
Rigs
McMullen, Ohio Fuel Gas Co. 1.
Ringer, Pure Oil Co. 1.
Sodson, Logan Gas Co. 1.
Phelps, Logan Gas Co. 1.
Stone, Ohio Fuel Gas Co. 1.
Miller, Ohio Fuel Gas Co. 1.
Hall, Ohio Fuel Gas Co. 2.
Gillespie, McCulough & Blackstone 2.
Knight, Big Lime O. & G. Co. 3.
Unity Hall School Lot, Scott & Co. 1.
Whitaker, Eastern Carbon Black Co. 1.
Wells Drilling
Hill, Ohio Fuel Gas Co. 1.
Driggs, Ohio Fuel Gas Co. 1.
Garvin, Ohio Fuel Gas Co. 1.
Naugle, Ohio Fuel Gas Co. 1.
Craig, Ohio Fuel Gas Co. 1.
Enga, Ohio Fuel Gas Co. 1.
O'Brien, Ohio Fuel Gas Co. 2.
Anderson, Ohio Fuel Gas Co. 1.
Young, Pure Oil Co. 1.
Ringer, Pure Oil Co. 1.
Braden, Pure Oil Co. 1.
Booth, Logan Gas Co. 1.
McBride, Whitmer, trustee 2.
Brill, Cambridge Glass Co. 1.
Riddle, Cambridge Glass Co. 1.
Mammond, Ohio Fuel Gas Co. 1.
McHaffey, Ohio Fuel Gas Co. 2.
Hall, Ohio F. S. Co. 1.
Fulton, Ohio F. S. Co. 1.
Oliver, Ohio Oil Co. 2.
Hunker, J. L. Johns 2.
White, Leonard O. & G. Co. 2.
Blackburn, Blackburn & Co. 1.
Mills, Blackburn & Co. 1.
Dedis, Withmer, trustee 1.
Purdum, Ray O. & G. Co. 1.
Archer, Sam'l. McConkey 1.
McElver, Kemrow Co. 1.

LICKING COUNTY
Rigs
Hever Bros., Pure Oil Co. 1.
Exampton, Myers & Co. 1.
Meckholm, E. H. Everett Co. 2.
Stitt, Whitehill & Co. 7.
Ferry, Ohio F. S. Co. 14, 15.
McKinney, North Fork Oil Co. 32.
Baird, Preston Oil Co. 3.
Elliott, Rocky River Oil Co. 1.
Burkholder, Decker & Co. 2.
Aedry, Mideast Oil Co. 5.
Wells Drilling
Walcott hrs., E. H. Everett Co. 2.
Crawford, Whitehill & Co. 3.
Ferry, Ohio F. S. Co. 14, 15.
Mossholder, Murphy Oil Co. 4.
Babcock, Preston Oil Co. 1.
Moran, Leonard O. & G. Co. 4.
Myers, Leonard O. & G. Co. 8.
Chaney, Guy Shafer 4.
Frost, Whitmore, trustee, 1.
Nolan, S. C. Brown 3.
Bucy, Ark. Fuel Oil Co. 1.
Dugan, Ark. Fuel Oil Co. 19.
Vandenbark, Hope C. & R. Co. 14.
Claypool, E. H. Everett Co. 2.
Uffner, Hope C. & R. Co. 2.
Orr, Pure Oil Co. 1.
Denny, Midland Oil Co. 1.
Melick Bros., Atha Oil Co. 13.
Michael, Pure Oil Co. 4.

MUSKINGUM COUNTY
Wells Drilling
Boyer, Whitehill & Co. 6.
Warner, Ohio F. S. Co. 5.
Asheraft, Pure Oil Co. 5.
Megge, Ohio F. S. Co. 1.

COSHOCTON COUNTY
Rig
McKee, Spindler, Donan & Co. 4.
Wells Drilling
McGee & Co., Ohio F. S. Co. 1.
Lewis, Crawford & Co. 3.
Cooper, Preston Oil Co. 2.

KNOX COUNTY
Rigs
Heaton, Pure Oil Co. 4.
Neff, East Ohio P. & R. Co. 2.
Swingle, Upham Gas Co. 1.
Wells Drilling
McMahan, East Ohio Gas Co. 1.
Colopy, Upham Gas Co. 1.

MORGAN COUNTY
Rigs
Epley, Pure Oil Co. 13.
Kangstreth, Sun Oil Co. 7.
Wells Drilling
Fye, Pure Oil Co. 13.
Smith, Pure Oil Co. 11.
Benjamin, Swisville O. & G. Co. 1.
Wymer, Thornlly & Co. 8.
Williams, Pure Oil Co. 8.
Nicewanner, Pure Oil Co. 6.
Bush, Pure Oil Co. 6.

VINTON COUNTY
Well Drilling
Brooks, Salsbury & Co. 1.

NOBLE COUNTY
Rig
Merry, Yerain & Co. 1.
Wells Drilling
Smith-Britton, Smith & Co. 2.
Warren, N. A. Patten 8.
Williams, Hrdo. O. & G. Co. 4.
Hill, Harper & Co. 1.
Davis, Davis Bros. 1.
Shafer, Wickens & Co. 1.
Garver hrs., Ohio F. S. Co. 1.

MEIGS COUNTY
Rig
Rouse, Rouse Bros. & Co. 2.
Wells Drilling
Nease, Calderwood & Co. 2.
Burdette, Coal Hollow O. & G. Co. 2.

WASHINGTON COUNTY
Rigs
Webber, Sutton Bros. 1.
Wells Drilling
Bate, Johnson & Co. 1.
Little, Kesselring 21.
Bosworth hrs., Todd & Co. 3.
Plumer, Kerr Bros. & Co. 6.
Hendershot, Ohio Oil Co. 3.
Thurman, Nat'l. Bank of Marietta 4.
Root, Root & Co. 1.
Williams, Carner & Co. 2, 3.
Hupp, Jerry Buckley 1.
Dow, Ames & Co. 1.
Westbrook, Braden O. & G. Co. 1.

BELMONT COUNTY
Wells Drilling
Helfley, Murphy & Co. 1.
Ferguson & Co., N. G. of W. Va. 6.
Bumgardner, N. G. Co. of W. Va. 4.

JEFFERSON COUNTY
Rigs
Dodd, Sutton & Co. 3.
Kellmier, Turner & Co. 7.

HARRISON COUNTY
Rig
Finacle, Crane & Co. 2.

CARROLL COUNTY
Wells Drilling
Harrington, N. G. Co. of W. Va. 2.
Rigs 51, Wells Drilling 134, Total 185.

CENTRAL OHIO

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Knox	1	0	0	1	0	10	10
Ashland	3	8	1	1	7	16	23
Medina	7	26	2	3	0	8	8
Lorain	1	0	0	1	0	2	2
Wayne	4	0	1	0	2	13	15
Holmes	6	210	2	1	2	21	23
Athens	4	3	0	3	0	12	12
Coshocton	2	0	0	2	2	3	5
Cuyahoga	3	0	1	2	0	14	14
Vinton	1	20	0	0	0	3	3
Jackson	0	0	0	0	0	1	1
Summitt	0	0	0	0	0	1	1
Ashtabula	1	0	0	1	0	0	0
Total Oct.	30	267	7	15	13	104	117
Total Sept.	43	688	8	23	20	101	121
Difference	13	421	1	8	7	3	4

WELLS COMPLETED

KNOX COUNTY
Jefferson—Cal Stout, East Ohio Gas 1. gas

ASHLAND COUNTY
Orange—J. H. Bushman, Ohio Fuel Gas 1 ..... dry
Hanover—J. H. Miller, East Ohio Gas 2. gas
Thos. Miller, Ohio Fuel Gas 1 6

Wells completed 3
Production 8
Dry 1
Gas 1

MEDINA COUNTY
Litchfield—Leland R. Seely, Logan Gas 2 ..... gas
Lafayette—H. S. Koppes, Ohio Fuel Gas 1 ..... gas
Liverpool—Geo. Strockopt, Ohio Fuel Gas 2 ..... dry
Phoebe Strockopt, East Ohio Gas 3.. gas
Chatham—L. A. Severcool, Ohio Fuel Supply 2 25
Carl G. Packard, E. R. Edson Sons Co. 26 1
Granger—Thos. Sylvester, Empire Gas & Fuel 1 ..... dry

Wells completed 7
Production 26
Dry 2
Gas 3

LORAIN COUNTY
Columbia—Chas. Kinsey, Empire Gas & Fuel 1 ..... gas

WAYNE COUNTY
Plain—J. G. Yocum, East Ohio Gas 4... dry

HOLMES COUNTY
Monroe— Wm. Miller, Arkansas Fuel Oil 3 30
Hardy—C. D. & Viola Groffs, East Ohio Gas 1 ..... dry
Bernice Allison, East Ohio Gas 1..... 130
Prairie—I. F. Snyder, The Pure Oil 2... 50
Kilbuck—C. P. Allison, Ohio Fuel Gas 1. gas
W. H. Mohr, East Ohio Gas 1..... dry

Wells completed 6
Production 210
Dry 2
Gas 1

ATHENS COUNTY
Carthage—B. W. Barnhill, Logan Gas 1. gas
W. O. & Mary Stout, Logan Gas 3.... gas
Daniel Ackerly, E. A. Sweeney & Co. 2 gas
Waterloo—M. G. Wood, Arkansas Fuel Oil 1 3

Wells completed 4
Production 3
Gas 3

COSHOCTON COUNTY
Newcastle—Cassingham, Cassingham & Bell Bros. 17 ..... gas
Monroe—R. L. McKelvey, Ohio Oil 1.... gas

Wells completed 2
Gas 2

CUYAHOGA COUNTY
Dover—M. Souleck, Wiser Oil 1..... gas
H. F. Eyring, Dempsey Bros. 1..... dry
Geo. Cifranio, Wiser Oil 1..... gas

Wells completed 3
Dry 1
Gas 2

VINTON COUNTY
Knox—Wesley Malburn, Gordon Oil 2... 20

ASHTABULA COUNTY
Eldred—Mrs. Ed. Spildone, Dave Culberison & Co. 1 ..... gas

KNOX COUNTY
Wells Drilling
Jefferson—Peter Kaufman, East Ohio Gas 1.
J. M. Miller, Ohio Fuel Gas 1.
Thos. McMahon, Ohio Fuel Gas 1.
Jos. Colopy Hrs. Upham Gas 1.
Brown—J. J. & S. M. Hair, Upham Gas 1.
Geo. Lifer, Upham Gas 1.
Morgan—Jacob Hays, Wiedeman & Co. 1.
Union—K. Neff, East Ohio Gas 2.
Clay—B. F. Baird, Logan Gas 6.
Geo. M. Divan, Decker & Co. 3.
Wells drilling, 10.

ASHLAND COUNTY
Rigs
Orange—P. M. Fluke, Logan Gas 2.
Eliva Piper, Logan Gas 1.
Hanover—B. M. Mavis, Logan Gas 1.
Chas. G. Spring, Logan Gas 1.
H. Bookman, East Ohio Gas 3.
Sullivan—D. E. Spencer, Ohio Fuel Gas 1.
L. & G. Burkhart, Logan Gas 2.
Wells Drilling
Orange—P. M. Fluke, Logan Gas 1.
Mm. H. Brandt, Logan Gas 2.
L. M. Helbert, Ohio Fuel Gas 2.
Hanover—L. S. Siddle, Logan Gas 1.
Mary Krumpt, Ohio Fuel Gas 1.
M. C. Leatherow, Ohio Fuel Gas 2.
Lake—John Moores, Logan Gas 1.
Green—W. A. Rowe, Logan Gas 1.
Wiley Johnson, Logan Gas 1.
J. F. Jones, Ohio Fuel Gas 2.
Sullivan—John J. Smith, Logan Gas 1.
L. B. and Evan F. Stine, Ohio Fuel Gas 1.
Anna M. Pence, Ohio Fuel Gas 1.
Clear Creek—R. N. Shaw, Logan Gas 1.
Troy—W. Frizzle, Logan Gas 1.
Ray Arnold, Hulse & Kundtz 1.
Rigs, 7; well drilling, 16; total, 23.

MEDINA COUNTY
Wells Drilling
Litchfield—Geo. Kennedy, Globe Oil & Gas 1.
Lafayette—Chas. R. Puch Hrs. Empire Gas & Fuel 1.
Liverpool—L. Hance, Logan Gas 1.
James Walters, Logan Gas 1.
Chas. Kuizey, Empire Gas & Fuel 1.
Westfield—O. E. Daniels, Logan Gas 1.
Spencer—Henry Mantz, Logan Gas 1.
Chatham—L. A. Severcool, Ohio Fuel Supply 3.
Wells drilling, 8.

LORAIN COUNTY
Wells Drilling
Columbia—F. Adams, Chemical Oil & Gas 3.
Penfield—Elmer Browand, Wiser Oil Co. 1.
Wells drilling, 2.

WAYNE COUNTY
Rigs
Milton—C. W. & L. B. Frick, East Ohio Gas 3.
Congress—O. E. Frank, Logan Gas 5.
Wells Drilling
Wooster—John M. Carroll, Ohio Oil 4.
Albert Berger, Ohio Oil 1.
Green—C. S. & C. A. Eby, W. E. Hawk & Co. 2.
East Union—M. Lautenschlager, Logan Gas 1.
Milton—A. & E. Bodager, East Ohio Gas 1.
Congress—H. B. Holmes, Logan Gas 1.
O. E. Frank, Logan Gas 4.
Barton Ginter, Warren Palmer & Co. 3.
C. W. & A. Keener, Glen Harmon & Co. 1.
Ora Kenney, Empire Gas & Fuel 3.
Cannan—Saniel Wiles, Butler Bros. 4.
Chester—D. Hoenshil, Logan Gas 1.
Baughman—Lydia C. Garber, Logan Gas 1.
Rigs, 2; wells drilling, 13; total, 15.

HOLMES COUNTY
Rigs
Monroe—Geo. W. Hanna, Empire Gas & Fuel 3.
Prairie—Margaret Miller, The Pure Oil 3.
Wells Drilling
Monroe—Ollie M. Smithhisler, Ohio Oil 2.
Geo. W. Hanna, Empire Gas & Fuel 2.
W. H. Geib, East Ohio Gas 3.
Hardy—Warren R. Close, The Pure Oil 4.
J. E. & M. Miller, East Ohio Gas 2.
Hugh McCullough, East Ohio Gas 1.
Delphia Nethrow, Empire Gas & Fuel 3.
Lewis Donald, Empire Gas & Fuel 3.

L. & W. G. Bilderbach, Empire Gas & Fuel 1.
Virginia Tidball, Klise-Eckstein-McCann 1.
Salt Creek—Adam Karch, Empire Gas & Fuel 1.
Prairie—Margaret Miller, The Pure Oil 2.
L. A. Sowash, East Ohio Gas 4.
Paint—E. E. Troyer, Logan Gas 1.
Emanuel B. Weaver, Logan Gas 1.
Isaac Y. Miller, Ohio Fuel Gas 2.
Kilbuck—Alfred & Ella Mohn, East Ohio Gas 1.
Richland—Geo. L. Strouse, East Ohio Gas 1.
John F. Roby, East Ohio Gas 1.
Rose Bricker, Klise-Eckstein-McCann 1.
Rigs, 2; wells drilling, 21; total, 23.

ATHENS COUNTY
Wells Drilling

Carthage—W. M. Winters, Logan Gas 1
C. E. Bradford, Goddard & Cunningham 1.
Oliver Davis, Hawkins & Co. 1.
J. L. Yarner, Fairfield Gas 1.
Eliza Dunlavey, Ohio Fuel Gas 1.
S. S. Huffman, Ohio Fuel Supply 1.
Margaret Rowan, E. A. Sweeney & Co. 2.
Wilbur Colmer, Colmer Oil & Gas 1.
G. D. Swartz, Cooper & Co. 3.
Waterloo—Lafayette Hewitt, Guenther & Co. 2.
J. C. Hewitt, Sharon Oil & Gas 1.
Lee—J .Rickey, Logan Gas 1.
Wells drilling, 12.

COSHOCTON COUNTY
Rigs

Perry—H. E. & R. Babcock, Logan Gas 1
Linton—Cliff McFarland, Ohio Fuel Supply 1.

Wells Drilling

Tiverton—W. S. & Sarah Cooper, Logan Gas 1.
Newcastle—Cassingham, Cassingham & Bell Bros. 18.
Perry—W. D. Mossholder, Murphy & Co. 4.
Rigs, 2; wells drilling, 3; total, 5.

CUYAHOGA COUNTY
Wells Drilling

Dover—G. M. Promfoot, Wiser Oil 2, 3.
G. W. Jenkins, Wiser Oil 1.
J. Jenkins, Arthur & Simpson 1.
H. Martin, Arthur & Simpson 1.
A. S. Knowles, Arthur & Simpson 1.
J. J. Sayles, Arthur & Simpson 1.
G. W. Evenden, Ohio Pipe & Supply Co. 1.
P. Hough, McGrath & Co. 1.
L. M. Coe, Dempsey Bros. 1.
G. Dunford, Logan Gas 1.
A. Dunford, Logan Gas 1.
N. H. Austin, Hulse & Kundtz 1.
J. Jenkins 2-A, Hulse & Kundtz 1.
Wells drilling, 14.

VINTON COUNTY
Wells Drilling

Knox—Frank Martin, B. Henry & Co. 2.
Geo. C. Davis, John DeLong & Co. 1.
Wm. Dearth, Beagley & Shaffer 2.
Wells drilling 3.

JACKSON COUNTY
Wells Drilling

Franklin—W. L. Kinnison, Logan Gas 2.

SUMMITT COUNTY
Well Drilling

Richland—Ella J. Mayer, Hulse & Kundtz 1.

LIMA FIELD

Summary of Field Operations

	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Wood	7	61	1	0	7	7
Hancock	7	105	1	0	8	8
Allen	2	39	0	0	3	3
Auglaize	3	30	1	0	2	2
Sandusky	4	29	0	3	2	5
Mercer	5	38	1	0	4	4
Van Wert	2	45	0	0	1	1
Seneca	0	0	0	0	2	2
Lucas	0	0	0	0	3	3
Ottawa	2	18	0	0	3	3
Shelby	3	97	0	0	5	5
Hardin	2	30	1	0	5	5
Darke	2	25	0	0	3	3
Paulding	0	0	0	2	0	2
Wyandot	0	0	0	0	1	1
Clark	0	0	0	0	1	1
Lima	39	517	5	5	50	55
Michigan	26	431	3	16	30	46
Total October	65	948	8	21	80	101
Total September	58	1,905	2	2	100	102
Difference	7	57	6	19	20	1

WELLS COMPLETED

WOOD COUNTY

Liberty—Frank Stratton, Man Stockwell 5.... 30
Henry—J. P. Cleary, Ohio Oil 2.... 2
Perrysburg—Geo. Deverna, Oko Oil & Gas Co. 9.... 6
Wm. Budd, Oko Oil & Gas Co. 6.... 14
Chas. Thaiss Jr., Oko Oil & Gas 5.... 5
J. J. Heilman No. 2, Oko Oil & Gas 1. dry
Ross—H. S. Landis, Ohio Oil 4.... abd
Lake—Otto Brim, Chas. F. Zeising & Co. 1.... 4

Wells completed 7
Production 61
Dry 1
Abandoned 1

HANCOCK

Liberty—M. E. Discus, Kirk & Discus 2. 25
Wm. Fleck, Bob Kirk 1.... 15
Allen—John Helmhoffer, P. J. Poole Estate & Co. 3.... 5
Marion—M. E. Bower lot, Merle E. Bower 2.... 5
Eagle—M. H. Deeds, J. M. Steen & Co. 26.... 5
Pleasants—Ann Henry, Bath Twp. Oil 3 50
Biglick—Leroy Wonders, Ridge Oil & Gas Syndicate 2.... dry

Wells completed 7
Production 105
Dry 1

ALLEN COUNTY

Bath—John Lenney, Ira B. Post & Co. 2 35
U. M. Shappell, U. M. Shappell 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24.. abd
Marion—Good & Tucker, Ohio Oil 6, 11. abd
Amanda—J. A. Bowsher, Halcyon Oil & Gas 1.... 4

Wells completed 2
Production 39
Abandoned 14

AUGLAIZE COUNTY

Moulton—Frank W. Roth, I. C. Robison 1.... dry
W. E. Cook, Young & Geseichen 8.... 5
H. F. Fritz, Whitling & Zimmerman 1.... abd
Logan—F. E. Zimmerman, Whitling & Zimmerman 1.... 25
Douchouquet—S. A. Baker, Ohio Oil 2.. abd

Wells completed 3
Production 30
Dry 1
Abandoned 2

SANDUSKY COUNTY

Jackson—W. D. Hummel Hurry Up Oil 8.... 10
Martha A. Talbert, Haubert & Talbert 9.... 5
Madison—A. H. Taulker, Home Banking 11.... 8
Washington—Jacob Nebb, M. P. McGee 1, 2.... abd
Scott—Stitt-Poole, Stitt, Poole & James 55.... 6
Stitt-Poole, Stitt, Poole & James 31, 39.... abd

Wells completed 4
Production 29
Abandoned 4

MERCER COUNTY

Recovery—Adam Fecher, A. W. Neely & Co. 6.... 8
Washington—B. Jutte, Dill one & Co. 1. 2
Butler—Jos. G. Wenning, J. C. Bailey 5. dry
W. E. Handley, W. E. Handley Trustee 1.... 13
Liberty—J. Koch, Celina Pet. 1.... 15

Wells completed 5
Production 38
Dry 1

VAN WERT COUNTY

York—Ed. E. Jones, Mack P. Colt & Co. 3.... 5
T. R. Hughes, Mack P. Colt & Co. 1, 4.... abd
Unknown, Chilcote Oil & Gas 2.... 40

Wells completed 2
Production 45
Abandoned 2

LUCAS COUNTY

Oregon—U. Beck, Ohio Oil 2.... abd

OTTAWA COUNTY

Harris—A. F. Alyn, Ohio Oil 4.... 12
A. F. Alyn, Ohio Oil 5.... 6
Allen—E. H. Babcock, Ohio Oil 5, 11.... abd
Chas. Holder, Ohio Oil 2.... abd
Augusta Gonskey, Ohio Oil 3.... abd
H. Strochein, Ohio Oil 4.... abd

Wells completed 2
Production 18
Abandoned 5

SHELBY COUNTY

Cynthian—Theresa Goffena, Ohio Oil 3 35
Theresa Goffena, E. E. Laughner 5.. 32
M. J. Seigel, Wittmer Property trustee 2.... 30

Wells completed 2
Production 97

HARDIN COUNTY

McDonel—Ira C. Schick, Boston-S. W. Oil & Gas 2.... 30
Marguret Hoey, Boston-S. W. Oil & Gas 1.... dry

Wells completed 2
Production 30
Dry 1

DARKE COUNTY

Mississinewa—O. J. Current, A. W. Neely & Co. 2.... 15
Chas. D. Rittenour, Hance & Hoffman 1.... 10

Wells completed 2
Production 25

MICHIGAN

SAGINAW COUNTY

Saginaw—Casper Ulrich, Bliss Pet. 4.... 15
Wm. Scherzer, The Sun Co. 1.... 30
C. J. Rab, The Sun Co. 1.... 10
John Schoenteit, The Sun Co. 3.... 10
John Schoenteit, The Sun Co. 4.... 15
Waterworks Add., Saginaw Prosp. 2.. 35
Periard-Bixby, Saginaw Prosp. 1.... 30
John Brechtelsbauer, Saginaw Prospecting 1.... 15
Mrs. Jane Marshall, V. M. Vorhees & Co. 1.... dry
Chas. R. Phillips, Barker Oil & Gas 1. 5
Ernest Fisher, Ohio Fuel Corp. 2.... 10
Spatz, Superior Oil 2.... 20
Weiss, Saval Dev. 1.... 28
Whittier Mill, Wells-Schmidt Co. 1.. 15
Mrs. C. Heppler, Matthew Heppler & Co. 1.... 15
Jos. Bisner, Fordney Pet. 1.... 10
Carrollton—George Spatz, Saval Dev. 2. 65
Osborne, Ralph E. Mills 1.... 20
Fred Tomforde, Great Lakes Oil 1.... 20
Mrs. M. Schultz, Fordney Pet. 1.... 25
Thos. Walker, Chas. P. Brandt & Co. 1 20
John Winters, W. G. Berghern & Co. 1 15
Oliver Bouchard, S. M. Bacon & Co. 1 dry
Buena Vista—Kundinger, Wanigas Oil Corp. 1.... dry

Wells completed 24
Production 428
Dry 3

BAY COUNTY

Monitor—Peter Forster, C. A. Smith Jr. 1.

ST. CLAIR COUNTY

Port Huron—Unknown parties 1.

WOOD COUNTY
Wells Drilling

Bloom—R. A. Hughes, Henera L. Hughes 5.
Liberty—Frank Stratton, Man Stockwell 6.
Perrysburg—Chas. Thaiss Jr., Oko Oil & Gas 6.
Wm. Budd, Oko Oil & Gas Co. 7.
Geo. Deverna, Oko Oil & Gas 10.
Lake—H. C. Michaelson, Lantz, Schulte & Co. 4.
Otto Brim, Chas. F. Zeising & Co. 2.
Wells drilling, 7.

HANCOCK COUNTY
Wells Drilling

Liberty—Bower & Co. A. P. Byal 2.
F. Bish, B. B. Porter & Co. 4.
Allen—H. Franks, P. J. Poole estate 12.
Marion—Levi Wolfe, Denhoff Bros. 1.
Eagle—Henry Deeds, B. Porter & Co. 20.
Portage—Issac Hart, Mathias Bros. 11.
Pleasants—Ann Henry, Bath Township Oil 4.
Biglick—H. B. Kurtx, Kirk & Fletcher 1.
Wells drilling, 8.

ALLEN FIELD
Wells Drilling

Bath—Hattie E. Driver, O. T. Botkins & Co. 3.
John Lenney, Ira B. Post & Co. 3.
Spencer—Ed. Raynelds, South Fork Oil 4.
Wells drilling, 3.

AUGLAIZE COUNTY
Wells Drilling

Moulton—J. H. Harshbarger, H. F. Kelley & Co. 3.
Logan—F. E. Zimmerman, Four Leaf Clover Oil 2.
Wells drilling, 2.

SANDUSKY COUNTY
Rigs

Jackson—W. D. Hemmel, Hurry Up Oil 9.
Martha A. Talbert, Haubert & Talbert 10.
Madison—Augusta H. Taulker, Home Banking 12.

Wells Drilling

Woodville—Herman Linke, Louis Hille 3
Washington—A. E. Waggoner, W. C. Richards & Co. 6.
Rigs, 3; wells drilling, 2; total, 5.

MERCER COUNTY
Wells Drilling

Recovery—Adam Fecher, A. W. Neely & Co. 7.
Butler—W. E. Handley, W. E. Handley trustee 2.
Gibson—Jos. Brunswick, Sam Tait Jr. 2
Liberty—M. A. Linn, Celina Pet. 3.
Wells drilling, 4.

VAN WERT COUNTY
Wells Drilling

York—Unknown, Chilcote Oil & Gas 3.

SENECA COUNTY
Wells Drilling

Clinton—A. E. Geyer, Arthur E. Geyer 2.
Jackson—Mary Steinbrook, Onsel Bros. 5.
Wells drilling, 2.

LUCAS COUNTY
Wells Drilling

Monclova—Wm. Black, L. W. Vernlye, Rec. 9.
Oregon—Henry Vilhauer, John Welton 1.
R. A. Bartley, Fred Keister 10.
Wells drilling, 3.

OTTAWA COUNTY
Wells Drilling

Harris—Gust Magsig, Burman Oil 1.
Henry Neeb, Babione Oil 6.
Salem—A. H. Mylander, Oak Harbor Nat. Gas 1.
Wells drilling, 3.

SHELBY COUNTY
Wells Drilling

Cynthian—N. Poulis, Ellerman Oil 1.
Jos. Seigel, Wittmer Property trustee 6.
Theresa Goffena, Ohio Oil 4.
Theresa Goffena, E. E. Laughner 6.
McLean—Henry Ernst L. T. McGrath 4.
Wells drilling, 5.

HARDIN COUNTY
Wells Drilling

McDonel—Ira C. Schick, Boston-S. W. Oil & Gas 3.
A. R. Zimmerman, Hardin Oil & Gas 8.
Earl Hites, Schmidt & Co. 1.
Chas. Umpress, Neely & Co. 1.
North Kenton—William Kurtz, unknown 1.
Wells drilling, 5.

DARKE COUNTY
Wells Drilling

Mississinewa—John E. Schmetz, Hindo Oil 6.
S. V. Ainsworth, D. D. Hance 1.
W. C. Discher, Cole Oil & Gas 15.
Wells drilling, 3.

PAULDING COUNTY
Rigs

Harrison—C. Springer, John T. Schunck 5.
A. M. Bailey, U. S. A. Oil 6.
Rigs, 2.

WYANDOT COUNTY
Well Drilling

Adam Keller, R. Allen & Co. 1.

CLARK COUNTY
Well Drilling

Madison—Mattinson, T. D. Friend 1.

MICHIGAN
SAGINAW COUNTY
Rigs

Sagniaw—F. M. Hansen, Wayco Prod. 1
Geo. Nentwig, Saval Dev. 1.
Wm. Scherzer, The Sun Co. 2.
John Stelriede, The Sun Co. 1.
John Schoenteit, 20, The Sun Co. 5.
H. Stelzriede, The Sun Co. 1.
Louis Voight, The Sun Co. 1.
N. E. of Bisner Well, Fordney Pet. 1.
John Walzlein, James Cooper 1.
Carrollton—Chas. Oering, Bliss Pet. 1.
J. C. Brechtelsbauer, J. H. Shaltry & Co. 1.
Mrs. Reed, V. M. Vorhees & Co. 1.
Russell & Co. Saval Dev. 1.
Weiss Street, Saginaw Prosp. 1.
Wm. Koepke, Saginaw Prosp. 1.
Julius Braun, Fordney Pet. 1.

Wells Drilling

Saginaw—Casper Ulrich, Bliss Pet. 5.
Fred Engle, Bliss Pet. 2.
J.W. Weiss, The Sun Co. 2.
Rechter estate, Saginaw Prosp. 1.
Wm. Scherzer, Saginaw Prosp. 1.
Lodge-Strong, Crane, Wallace & Co. 1
Mrs. Braum, Wayco Prod. 1.
String-Lodge lots, S. R. Dietrick & Co. 1.
Ben Wall, Superior Oil 1.
Niagara Street, F. D. Barton & Co. 1.
Gager, Samuel Schwink 1.
Weiss, J. H. Shaltry & Co. 1.
Hermansau Road, Richard Cross & Co. 1.
Carrollton—E. E. Householder, Saginaw City Bldg. Co. 1.
J. Conrad Brechtelsbauer, Myron F. Lee 2.
Graham-Sparling, Local Oil 1.
Chas. Priess, Valley Oil & Gas 2.
Hemmeter, Saginaw Prosp. 1.
Mershon-Eddy-Parker, Ohio Oil 2.
Harrison St. Kipp Oil 1.
Giligans, Thos. J. Giligans 1.
Buena Vista—Chas. H. Kretchmer, Saval Dev. 1.
E. G. Rust, Saginaw Prosp. 1.
Taymouth—Geo. Judd, S. M. Bacon & Co. 1.
Frankemuth—Rogner, Brown City Prosp. 1.
St. Charles—Craven, Michael McLaughlin & Co. 1.
Rigs, 16; wells drilling, 26; total, 42.

MIDLAND COUNTY
Well Drilling

Midland-Hlavacek, Saginaw Prosp. 1.

ALCONA COUNTY
Well Drilling

Harrisville—Local Oil 1.

MONROE COUNTY
Well Drilling

Dundee—Frank Roe, Jackson County Oil & Gas 1.

JACKSON COUNTY
Well Drilling

Napoleon—Silvers, Jackson County Oil & Gas 1.

ILLINOIS

Summary of Field Operations

	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Clark	4	54	1	0	5	5
Crawford	6	30	0	0	7	7
Lawrence	6	120	1	0	4	4
Wabash	20	687	11	4	19	23
Marion	1	6	0	0	1	1
Colcs	0	0	0	0	1	1
Douglass	0	0	0	0	1	1
Fayette	0	0	0	1	0	1
Edwards	0	0	0	0	1	1
McDonough	1	0	1	0	2	2
Madison	0	0	0	0	2	2
Macon	0	0	0	0	1	1
Morgan	1	5	0	0	0	0
Shelby	0	0	0	0	1	1
Washington	0	0	0	0	1	1
Total October	39	902	14	5	46	51
Total September	47	1,188	13	1	49	50
Difference	8	286	1	4	3	1

Note—One gas well was completed in September.

WELLS COMPLETED

CLARK COUNTY

Casey—George Smith, C. L. Palmer 14.. 4
Martinsville—W. D. Slater, H. C. Ferriman & Co. 3.... 35
A. W. Covalt, Ohio Oil 6.... 15
Orange—Alex Beasley, W. C. McBride Inc. 1.... dry

Wells completed 4
Production 54
Dry 1

CRAWFORD COUNTY

Martin—Asbury Pope, W. C. Kennedy Co. 1.... 3
A. Mann, Frost Oil 5.... 12
L. M. Highsmith, Abbott & Co. 3.... 2
Honey Creek—J. D. Reaville, John Phipps 9.... 5
J. D. Reaville, Ohio Oil 19.... 4
J. D. Reaville, Ohio Oil 20.... 4

Wells completed 6
Production 30

LAWRENCE COUNTY

Dennison—William Dennison, Ohio Oil 3 dry
Ellen Lutz, Ohio Oil 7.... 50
A. B. Buchannan, Ohio Oil 17.... 10
William Seed No. 2, Ohio Oil 4.... 35
A. B. Jordan, Ohio Oil 12, 16.... abd
W. H. Dinning, A. Bruner & Co. 11.... 15
Bridgeport—Ellen Lutz, Big Four Oil & Gas 2.... 10
Lawrence—T. H. & J. J. Seed, Joseph F. Griggs & Co. 11.... abd
Lydia Seed, Ohio Oil 4.... abd

Wells completed 6
Production 120
Dry 1
Abandoned 4

WABASH COUNTY

Wabash—Kogan Hrs., Mayhugh & Co. 10 105
Kogan Hrs., Mayhugh & Co. 11.... 175
E. Armrong, Adams Corner Oil 2.... 150
Mack Madden, Adams Corner Oil 9.... 35
W. O. Johnson, Adams Corner Oil 3.... dry
Nora Marcotte, W. C. Bride Inc. 5.... 2
J. H. Cisll, W. C. McBride Inc. 6.... 15
M. Madden, Mahutska Oil 5.... dry
Ed Armstrong, Mahutska Oil 3.... dry
C. Keyser, Young Wirebaugh & Co. 5. dry
C. Keyser, Young Wirebaugh & Co. 6. 150
A. Gher, Joe S. Young Jr. & Co. 2.. dry
W. O. Johnson, Joe S. Young Jr. & Co. 1.... dry
Coll'son Hrs., Ellison & Co. 5.... dry
S. Compton, Phipps & Blosser 1.... dry
Friendsville—Bob Liddle, Henneberger & Co. 1.... 5
Louis Armstrong, Bell Bros. 2.... 50
Abner Litherland, Alspaugh & Co. 1 dry
C. Frick, Healey & Lee 2.... dry
V. S. Tanguary, Smith & Co. 1.... dry

Wells completed 20
Production 687
Dry 11

MARION COUNTY

Centralia—Henry Hoeinghouse, Bateman & Bateman 2.... 6

M'DONOUGH COUNTY

Plymouth—Colmar-Stoneking, Unknown 1.... dry

MONROE COUNTY

Waterloo—Chas. Rueck, Tokay Oil & Gas 1.... ald
C. Wismuth, East St. Louis Drilling 1, 2, 3, 4, 5.... abd

Abandoned 6

MORGAN COUNTY

Sec. 18-15n; 9-w—O. F. Conklin, Paul C. Irwin 1.... 5

CLARK COUNTY
Wells Drilling

Casey—James Rush, W. C. McBride Inc. 26.
Martinsville—Nettie Baker, W. C. McBride Inc. 11.
S. W. McClelland, Trenton Rock Oil & Gas 5.
Wabash—Hodson, Albon & Co. 1.
Johnson—Norman Bennett, W. C. McBride Inc. 1.
Wells drilling, 5.

CRAWFORD COUNTY
Wells Drilling

Martin—A. W. Mann, Farnaworth & Barker 1.
Honey Creek—J. L. Cullons, Barber & Co. 1.
H. T. Souther, Barber & Co. 1.
J. D. Reaville, Ohio Oil 21.
Robinson—Sam L. Firebaugh, Ohio Oil 11.
Montgomery—J. H. Armstrong, Dill & Co. 1.
Licking—A. P. Matheney, Southerland & Co. 1.
Wells drilling, 7.

LAWRENCE COUNTY
Wells Drilling

Dennison—William Seed No. 2, Ohio Oil 5.
Ellen Luts, Ohio Oil 8.
Bridgeport—J. R. Middagh, Ohio Oil 23.
Lukin—B. Eason, Frank Ellison 1.
Wells drilling, 4.

WABASH COUNTY
Rigs

Wabash—John G. Trimble, Adams Corner Oil 2.
John Breen, Breen Oil 4.

Ossac Beckes, Keneipp & Co. 1.
Friendsville—Otis Mathey, Wabash Drlg. 8.
Wells Drilling
Wabash—William Price, Risley & Co. 1.
Tracey Hrs. Tracey Oil 2.
F. M. Leek, Oldendorf & Co. 4.
Joe Keyser, Jos. S. Young Jr. & Co. 4.
Ogle Johnson, Jos. S. Young & Co. 1.
C. Keyser, Young, Wirebaugh & Co. 7.
Walter Parkinson, Miller & Lengelsen 1.
Mrs. Lena Morgan, Miller & Lengelsen 1.
Ed Wright, Lord & Stranahan 1.
F. M. Leek, Mt. Carmel Oil 7.
W. O. Johnson, Adams Corner Oil 4.
Cisil Hrs. John H. Cisil Oil 4.
Garrett Cozine, Kern & Co. 1.
Kogan Hrs., Mayhugh & Co. 12.
Friendsville—Ed Hardwick, Miller, Lengelsen & Co. 1.
V. E. Tanguary, George Whitson & Co. 1.
J. O. Woods, Wood Oil 3.
Belmont—P. R. Fisher, Bell Bros. 1.
Lick Prairie—Charles S. Groff, Miller, Lengelsen & Co. 1.
Rigs, 4; wells drilling, 19; total, 23.

MARION COUNTY
Well Drilling
Centralia—H. C. Higgins, H. C. Higgins 1.

COLES COUNTY
Well Drilling
Ashmore—Luther Houghton, Shride & Co. 1.

DOUGLASS COUNTY
Well Drilling
Sargent—W. E. Brown, Douglass Oil 1.

FAYETTE COUNTY
Rig
Fayette—John Baxter, H. McCurdy 1.

EDWARDS COUNTY
Well Drilling
French Creek—John R. Helm, Graysville Oil Synd. 1.

M'DONOUGH COUNTY
Wells Drilling
Plymouth-Colmar—Neil Thorson, W. A. Evans 1.
M. H. Williams, Fisher & Co. 1.
Wells drilling, 2.

MADISON COUNTY
Well Drilling
Namcoki—Goodrich, Goodrich Bros. 1.
Pine Oak—Gusswillie, Assembly Oil & Gas 1.
Wells drilling, 2.

MACON COUNTY
Well Drilling
Hickory Point—A. Parrish, Powers & Co. 1.

SHELBY COUNTY
Well Drilling
Holland—W. Prosser, A. L. Ginther 1.

WASHINGTON COUNTY
Well Drilling
Irvington—Louis Aldag, Petro. Oil & Gas 1.

INDIANA FIELD

INDIANA

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wells	1	0	1	0	0	0	0
Jay	4	42	1	0	0	0	0
Adams	5	72	0	0	6	12	18
Huntington	1	2	0	0	0	1	1
Randolph	0	0	0	0	0	1	1
Gibson	2	0	0	2	0	5	5
Pike	7	221	1	0	1	10	11
Sullivan	2	1	1	1	0	3	3
Allen	0	0	0	0	2	2	4
Knox	2	5	1	0	0	1	1
Daviess	4	155	1	0	0	5	5
Vigo	0	0	0	0	0	1	1
Shelby	1	0	0	0	1	2	2
Dubois	0	0	0	0	0	1	1
Benton	0	0	0	0	0	1	1
Johnson	0	0	0	0	0	1	1
Madison	1	0	0	1	0	1	1
Martin	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Morgan	0	0	0	0	0	1	1
Spencer	0	0	0	0	1	0	1
Total Oct.	31	568	6	5	11	49	60
Total Sept.	20	226	9	2	11	49	60
Difference	11	342	3	3	0	0	0

WELLS COMPLETED

WELLS COUNTY
Nottingham—John Harris, Buffton Co. 1 ..... dry

JAY COUNTY
Green—Houck, Bloxsome 1 ..... dry
Penn—S. E. Davis, Amber Oil Prod. 11.. 15
Bear Creek—L. D. Bone & Co. Central West Oil & Gas 3 7
Harry Armentrout No. 1, Southern Oil 9 20
Wells completed 4
Production 42
Dry 1

ADAMS COUNTY
Jefferson—D. C. Boze, Geo. S. Lacknett 2 10
Mary J. Niblick, J. H. Harmon & Co 7 20
Spindler-Wilson, Alvin C. Spindler 1.. 25
Blue Creek—Ed. Lugabill, Paul Schulte 2 15
Wabash—Mrs. Bert Parr, M. S. Daugherty 1 2
Wells completed 5
Production 72

HUNTINGTON COUNTY
Salamonie—J. L. Priddy, March Pet. 11. 2

GIBSON COUNTY
Barton—Sam McCullough, Bell Bros. 1. gas
Geo. Conrad, Bell Bros. 1. ..... gas
Washington—W. E. Deffendall, Ohio Oil 3 ..... abd
O. J. Nixon, Ohio Oil 6 ..... abd
Wells completed 2
Gas 2
Abandoned 2

PIKE COUNTY
Logan—Wm. Miley, John D. Morrisey & Co. 1 35
Ern Wilson, Gray & Co. 1 36
Enos Loveless, P. C. Andrews 7 150
James Wilson, Davis, Miller & Whitlock 2 40
J. Q. McDaniel, Consolidated Oil Dev. 6 ..... abd
Madison—W. H. Shawhan, A. B. Bement 2 30
Washington—Eliza Martin, Molton, Noble & Co. 1 ..... dry
Monroe—August Yeager, Gem Oil Corp. 1 ..... gas
Moses Skinner, Ohio Oil 4 ..... abd
Patoka—Harlan L. Kaya, Ohio Oil 4 ..... abd
Wells completed 7
Production 291
Dry 1
Abandoned 3

SULLIVAN COUNTY
Fairbanks—J. V. Merrill, Ohio Oil 22... dry
Turman—J. T. Carrithers, R. A. Hooten & Co. 4 1
Gill—Bledsoe, Dome Gas 1 ..... gas
Wells completed 3
Production 1
Dry 1
Gas 1

KNOX COUNTY
Harrison—W. E. Harrison, Murphy Oil 5 5
Geo. Ryan, unknown 1 ..... dry
Wells completed 2
Production 6
Dry 1

DAVIESS COUNTY
Veale—Edith White, Geiger Oil 1..... 125
Allison Bros., Pierce Cavinaugh & Co. 1 15
T. Ragsdale Hrs., Peak Oil 2 15
Washington—L. L. Miller, Hart Bros. 1. dry
Wells completed 5
Production 155
Dry 1

SHELBY COUNTY
Van Buren—Enos Porter, Enos Porter 1 gas

ADAMS COUNTY
Rigs
Jefferson—Spindler, Alvin C. Spindler 3.
John Parr, Geo. S. Lacknett 1.
Geo. Zehr, Roy Grimm 1.
Blue Creek—J. O. Maloney, John King 1.
Wabash—Mrs. Dan Hawbacher, Fink & Smith 2.
Monroe—Stengle & Craig, R. S. Anderson & Co. 2.

Wells Drilling
Jefferson—Wm. Ballenacher, W. E. & C. H. McKelvey 2, 3.
Joe Peel, W. E. & C. H. McKelvey 1.
Wm. Smitley, Richberne Oil & Gas 4.
Wm. Kerr, Homer Pontius 1.
C. Gerber, Robt. Maybeer 1.
John T. Teeter, J. W. O'Neill & Co. 1.
Spindler, Alvin C. Spindler 2.
Mary J. Niblick, J. H. Harmon & Co. 8.
Blue Creek—Geo. Swank, Paul Schulte 1.
Wabash—J. B. Steiner, M. S. Daugherty 3.
John H. Hilty, Robt. Maybeer 1.
Rigs, 6; wells drilling, 12; total, 18.

HUNTINGTON COUNTY
Well Drilling
Salamonie—W. D. Bonifield, Wood & Canaday 8.

RANDOLPH COUNTY
Well Drilling
Monroe—R. B. Cockrill, Frank C. Bolick 3.

GIBSON COUNTY
Wells Drilling
Washington—J. P. Vierling, Chas. Strobie 1.
Vierling Hrs. Euclid Oil 3.
Montgomery—John Enlow, John Enlow & Co. 1.
Barton—Doctor B. L. Null, Bell Bros. 1.
Center—Mary Hollingsworth, Mann & Huber 1.
Wells drilling, 5.

PIKE COUNTY
Rigs
Logan—E. Beck, Alex Singer & Co. 2.

Wells Drilling
Logan—Em Wilson, Wiser Oil 1.
Walter Miley, Henry Skidmore & Co. 3.
Mandy Williams, Claud Chandler & Co. 3.
D. S. Huey, Noble-Bolyard Oil 10.
C. Atkinson, Consolidated Oil Dev. 5.
Wm. Miley, John D. Morrisey & Co. 2.
Mandy Miley, Reynolds Oil 1.
Enos Loveless, P. C. Andrews 8.
Clay—Stewart Bros. Murphy Oil 7.
Washington—Timothy, Shea, Molton, Noble & Co. 1.
Rig, 1; wells drilling, 10; total, 11.

SULLIVAN COUNTY
Wells Drilling
Fairbanks—J. F. Harrison, Hollingsworth & Co. 5.
John Hunt, A. R. Morris 1.
Turman—A. Raley, Wm. C. Kennedy Co. 1.
Wells drilling, 2.

ALLEN COUNTY
Rigs
Maumee—D. Helmke, Waterloo Oil & Gas 3.
J. F. Butt, Estes, Manion & Co. 3.

Wells Drilling
Maumee—M. Roamake, Schuran Oil 1.
J. F. Butt, Estes, Manion & Co. 3.
Rigs, 2; wells drilling, 2; total, 4.

KNOX COUNTY
Well Drilling
Posey—Joseph Keyser, Western Gulf Oil 1.

DAVIESS COUNTY
Wells Drilling
Veale—Andy Gress, Neal & Co. 1.
Ziba Graham, Pierce Cavinaugh & Co. 1.
T. Ragsdale Hrs., Peak Oil 3.
Edith N. White, Geiger Oil 2.
Washington—Klan, Geiger Oil 1.
Wells drilling, 5.

VIGO COUNTY
Well Drilling
Section 14-11-8.—E. D. Fagan & Co. 1.

SHELBY COUNTY
Wells Drilling
Van Buren—J. Harshbarger, L. Nicholson 1.
Brandywine—Elmer Vernon, Indiana parties 1.
Wells drilling, 2.

DUBOIS COUNTY
Well Drilling
Cass—Wm. Meisener, Wheeler & Co. 1.

BENTON COUNTY
Well Drilling
Oxford—Jesse Voliva, Chicago parties 1.

JOHNSON COUNTY
Well Drilling
N. W. of Franklin—Universal Dev. 2.

MADISON COUNTY
Well Drilling
Pendleton—Willis Little, Pendleton Nat. Gas 1.

MARTIN COUNTY
Well Drilling
Loogootee—Kenner Dilley, Loogootee Light & Fuel 2.

MONROE COUNTY
Rig
Polk—Saddle Creek Oil 2.

MORGAN COUNTY
Well Drilling
Mooresville—Gilbert Gray & Co. 1.

SPENCER COUNTY
Rig
Jackson—Doctor Hoover, D. D. Thompson 1.

GULF COAST FIELDS

Summary of Field Operations

Field—	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Boling	2	1,000	1	1	2	3
Batson	8	201	3	0	6	6
Blue Ridge	1	700	0	1	7	8
Barber Hill	0	0	0	0	4	4
Big Creek	0	0	0	0	3	3
Dayton	0	0	0	0	1	1
Edgerly (La.)	1	15	0	0	3	3
Goose Creek	5	800	1	1	11	12
Humble	3	45	0	1	3	4
Hull	17	10,215	5	3	15	18
High Island	0	0	0	0	4	4
Jennings (La.)	0	95	4	1	2	3
Lockport (La.)	3	1,775	0	2	8	10
Markham	0	0	0	1	2	3
Nash	0	0	0	2	3	5
Orange	9	345	1	0	9	9
Orchard	0	0	0	0	1	1
Pierce Junction	5	5,900	2	8	9	17
Piedras Pintas	1	275	0	1	2	3
Spindletop	39	72,125	9	10	36	46
Saratoga	2	0	2	0	1	1
Sour Lake	15	5,925	1	3	14	17
South Liberty	5	2,600	2	2	3	6
Vinton	5	3,145	1	1	5	6
West Columbia	0	0	0	0	3	3
Miscellaneous	11	200	10	10	39	49
Total Oct.	142	105,361	42	49	196	245
Total Sept.	111	108,926	35	55	184	239
Difference	37	3,565	7	6	12	6

WELLS COMPLETED
BOLING
Taylor, The Texas Co. 10-A 1000
Felder, The Texas Co. 2 ..... abd
Wells completed 2
Production 1000

BATSON
Paraffine, Paraffine Oil 67 50
Counzelman, East Batson Oil 1 6
Fee, Ada Belle Oil 110 60
Choate, Gulf Prod. 63 75
Hodges, Capitol Oil 4 ..... sw
Milhome, S. R. Buchanan 91 ..... sw
Paraffine, Paraffine Oil 68 ..... sw
Paraffine, Acorn Oil 61 10
Wells completed 8
Production 201
Saltwater 3

BARBER HILL
West-Schneck, J. S. Abercrombie 2 700
Wells completed 1
Production 700

EDGERLY
Hill, Drysdale-Savoy Oil 2 15
Wells completed 1
Production 15

GOOSE CREEK
State land, Gulf Prod. 10 (wo) 500
Gilliard, Gulf Coast Oil 21 (wo) 100
Galliard, Gulf Coast Oil 14 (wo) 100
Peninsula, Humble Oil & Ref. 10 (wo).. abd
Smith, Humble Oil & Ref. 26 (wo) 100
Wells completed 5
Production 800
Abandoned 1

HUMBLE
Bissonnett, Deering Co. 2 (wo) 20
Strange, Marsalles Bros. 9 10
Wilson, Martin & Drake 1 15
Wells completed 3
Production 45

HULL
Dolbear, Republic-Houston Oil 136 1000
Dolbear, Republic-Houston Oil 139 800
Barngrover, Empire Gas & Fuel 20 900
Dolbear, Republic-Houston Oil 39 (wo) 400
Phoenix, Gulf Prod. 5 (wo) 125
Phoenix, Gulf Prod. 62 ..... abd
Dolbear, Republic-Houston Oil 126 dpn 4000
Barngrover, Empire Gas & Fuel 21 250
Phoenix, Gulf Prod 74 2500
Dolbear, Republic-Houston Oil 138 100
Lynd, Humble Oil & Ref. 1 ..... sw
Guedry, Humble Oil & Ref. 22 80
Taylor, Houston Prod. 10 ..... abd
Abel, Hull Oil 11 35
Dolbear, Republic-Houston Oil 108 (wo) 25
Lynd, Humble Oil & Ref. 1 ..... abd
Seale, Mecom Oil 1 ..... sw
Wells completed 17
Production 10215
Abandoned and salt water 5

JENNINGS
Noble, Utropal Oil 1 70
Fontent, General Pet. 1 (wo) ..... sw
Fee, General Pet. 6 ..... sw
Chicago-Jennings, F. I. Getty 11 ..... sw
Noble, Jennings Oil & Gas 1 25
Latrielle, The Texas Co. 105 ..... sw
Wells completed 6
Production 95
Saltwater 4

LOCKPORT
Miller, Vacuum-Gulf Co. 10 275
Bayou D'Inde, Vacuum-Gulf 1 1500
Farquhar, Vacuum-Gulf 1 ..... gas
Wells completed 3
Production 1775

ORANGE
Brown, Sun Co. 2 (wo) 60
Jackson, Supreme Oil 1 100
Carbello, Rex Pet. 2-B 35
Chesson, Orange Pet. 7 ..... sw
Winifree, Humble Oil & Ref. 2 100
McGuire, Gulf Prod. 1 ..... abd
State land, Rycade Pet. 1-C 50
Chesson, Texhoma Oil 9 ..... abd
Chesson, Orange Pet. 7 ..... abd
Wells completed 9
Production 345
Abandoned and saltwater 1

PIERCE JUNCTION
Jones, Gulf Prod. 1-A ..... sw
Prudential, Marland Oil 1 300
Fee, Rio Bravo Oil 4 3000
Humble, Navarro Oil 1 200
Bender, J. F. Bashara 2 (wo) 800
Taylor, Gulf Prod. 18 (sanded) 600
Higgins, J. F. Bashara 1 1000
Howe, H. R. Cullen 7 ..... abd
Wells completed 7
Production 5300
Abandoned and saltwater 3

PIEDRAS PINTAS
Walsh, Humble Oil & Ref. 6 275
Wells completed 1
Production 275

SPINDLETOP
Jack-Duff, Gulf Prod. 5 2000
Weed, Gulf Prod. 7 3200
McLean, Atlantic O. P. 12 4800
Weed, Gulf Prod. 3-A 3500
Rush, Deep Sand Oil 3 ..... sw
Gordon, Paggi & Co. 3 ..... abd
McLean, Sun Co. 4 4300
Weed, Gulf Prod. 9 4000
McFaddin, Yount Lee Oil 13 12,000
Oakwood, Gulf Prod. 6 2500
Pierce, Seiss et al 1 1500
Fee, Yount Lee Oil 11 5000
Fee, Yount Lee Oil 9 ..... abd
Howell, Deep Sand Oil 2 50
Gordon, Paggi & Co. 2 50
Price, Sun Co. 1 175
Weed, Gulf Prod. 5 150
McFaddin, Lount Lee Oil 10 3200
McFaddin, Yount Lee Oil 14 6800
Roche, Gulf Prod. 5 3000
Oakwood, Gulf Prod. 5 ..... abd
McLean, Atlantic O. P. 8 (wo) 700
Roche, Gulf Prod. 4 ..... abd
Ewing, Ross Combat 1 ..... abd
Weed, Favorite Oil 1 ..... abd
T. & N. O., Rio Bravo Oil 7 3200
T. & N. O., Rio Bravo Oil 51 5000
McLean, Atlantic Oil Prod. 9 500
McFaddin, Unity Oil 90 ..... abd
T. & N. O., Rio Bravo Oil 52 3500
McLean, Atlantic Oil Prod. 1 1500
McLean, Atlantic O. P. 13 500
Rush, Deep Sand Oil 3 50
McLean, Grayburg Oil 1 ..... abd
McLean, Sun Co. 1 (dpnd) 3800
McFaddin, Hyland Oil 1 150
Roche, Gulf Prod. 8 1300
Davis, Yount Lee Oil 5 4200
McFaddin, Yount Lee Oil 16 2100
Wells completed 39
Production 72135
Abandoned and saltwater 9

SARATOGA
Cotton, Rio Bravo Oil 46 ..... dry
Jorditt, Rio Bravo Oil 11 ..... abd wtr
Wells completed 3
Abandoned 3

SOUR LAKE
Fee, Bashara Oil 2-C 1500
Eunice, Eunice et al 500
Bashara, Humphrey Corp. 2-B 900
Bashara, Humphrey Corp. 3 800
Hardin, Lake View Oil 50 ..... abd
Hardin, Humble Oil & Ref. 32 60
Cora Lee, Gulf Prod. 1 800
Bashara, Humphrey Corp. 4 600
Bashara, Bashara Oil 3 150
Jackson, J. H. Antillery 1 25
McLean, Gulf Prod. 1 150
Hardin, Lake View Oil 51 25
Cora Jackson, Gulf Prod. 2 340
Fee, J. F. Bashara 3 150
Jackson, J. H. Antillery 1 25
Wells completed 15
Production 5925
Abandoned 1

SOUTH LIBERTY
Harrison, Peer Oil ..... abd
Mutchell, Premium Oil 1 ..... abd
Beckman, Gulf Prod. 1 800
Welder, Humble Oil & Ref. 4 1500
Welder, Humble Oil & Ref. 3 300
Wells completed 5
Production 2600
Abandoned 2

VINTON
Star, Gulf Ref. 40 1200
Vincent, Gulf Ref. 42 ..... sw
Gray, Vinton Pet. 20 15
F. H. Gray, Gulf Ref. 5 250
Vincent, The Texas Co. 17 150
Vincent, Edgerly Pet. 10 30
Gray, Gulf Ref. 3 1500
Wells completed 7
Production 8145
Saltwater 1

MISCELLANEOUS
Fort Bend County—
Davis, Gulf Prod. 16 ..... abd
Davis, Gulf Prod. 17 ..... abd
Davis, Gulf Prod. 15 ..... abd
Harris County—
Lipper, Kelly et al 1 ..... abd
Cage, Gwynn et al 1 ..... abd
Angelina County—
Montooth, Lufkin Drlg. 1 ..... abd
Brazoria County—
Mayes, The Texas Co. 1 ..... abd
Jefferson County—
West, Port Arthur Dev. 4 ..... wtr
Liberty County—
Grogan, Geo. Leland 1 ..... abd

SOUTH LOUISIANA
Cameron Parish—
Sweet Lake, Pure Oil 3 200
Jeff Davis Parish—
———, H. H. Hanszen 1 ..... abd
Wells completed 11
Production 200
Abandoned 10

RIGS AND DRILLING WELLS
BOLING
Rig
Taylor, The Texas Company 11-A.
Wells Drilling
Farmer, The Texas Company 1.
Farmer, The Sun Co. 1.
Rig, 1; wells drilling, 2; total, 3

BATSON
Wells Drilling
Choate, Gulf Prod. 64.
Cruse, Gulf Prod. 1.
Milhome, S. R. Buchanan 91.
State Land, East Batson Oil 14
Paraffin, Paraffin Oil 68
Hooks, Sterling Oil 5.
Wells drilling, 6.

BLUE RIDGE
Rig
West-Schenck, J. S. Abercrombie 2.

Wells Drilling
Davidson, Sinclair Oil & Gas 2.
Blakely, Gulf Prod. 6.
Luscher, Gulf Prod. 9.
West-Schenck, Gulf Prod. 7.
West-Schenck, Humphrey Corp. 1.
Booth, Texhoma Oil 2.
Robinson, Navarro Oil 1.
Rig, 1; wells drilling, 7; total, 8.

BARBER HILL
Wells Drilling
Fee, Patrillo Higgins 1.
Myers, Humble Oil & Ref. 1.
Barber, Barclay & Meadors 3.
Kirby, Humphrey & Bennett 1.
Wells drilling, 4.

BIG CREEK
Davis, Gulf Prod. 34, 35.
Wheat, Gulf Prod. 5.
Wells drilling, 3.

DAYTON
Wells Drilling
Liberty, Old Colony Oil 14.
Well drilling, 1.

EDGERLY
Wells Drilling
Hunter, Rex Pet. 3.
Landry, Edwards Oil 4.
Lilliard, C. M. Crotty 14.
Wells drilling, 3.

GOOSE CREEK
Rig
Chapman-Bryan, Gulf Prod. 13.
Wells Drilling
Hirsch, Gulf Prod. 6.
State Land, Gulf Prod. 6.
Smith, Humble Oil & Ref. 21, 68.
Peninsula, Humble Oil & Ref. 9, 17, 32, 34.
Schilling, Keen & Wolf 9.
Scorgea, M. & B. Oil 5.
Galliard, Gulf Coast Oil 35.
Rig, 1; wells drilling, 11; total, 12.

HUMBLE
Rig
——, Marsailes Bros. 1.
Wells Drilling
Bissonett, John Deering 4.
Hirsch, Benedum & Trees 1.
Martin, Martin & Co. 1.
Rig, 1; wells drilling, 3; total, 4.

HULL
Rigs
Dolbear, Republic Prod. 142.
Lynd, Humble Oil & Ref. 2.
Merchant, Humble Oil Ref. 5.
Wells Drilling
Dolbear, Republic Prod. 41, 108, 140, 141.
Phoenix, Gulf Prod. 73, 75, 76, 77.
Hannah fee, Gulf Prod. 18, 19.
Taylor, Houston Oil 8.
Hooks-Spell, Humble Oil & Ref. 4.
Amlein, The Texas Company 1.
Hannah, The Texas Company-Vacuum Oil 6.
Barngrover, Empire Gas & Fuel 22.
Rigs, 3; wells drilling, 15; total, 18.

HIGH ISLAND
Cade, The Sun Co. 8-C, 11.
Lockhart, The Sun Co. 10.
McCarthy, Island Oil 1.
Wells drilling, 3.

JENNINGS
Rig
Crow, Utropal Oil 1.
Wells Drilling
Latrille, The Texas Company 117.
Chgo-Jennings, F. I. Getty 7.
Rig, 1; wells drilling, 2; total, 3.

LOCKPORT
Rigs
Miller, Vacum-Gulf 12.
Bordages, Vacuum-Gulf 2.
Wells Drilling
Miller, Vacuum-Gulf 6, 11, 8.
Farquhar, Vacuum-Gulf 1, 4.
Friedberg & Wolf 3.
Bayou D'Inde, Vacuum-Gulf 2.
Lock-Moore, Vacuum Gulf 4.
Rigs, 2; wells drilling, 8; total, 10.

MARKHAM
Rig
Kountz, Rycade Pet. 2.
Wells Drilling
Gray, Powers Prod. 2.
Mysers, Houston-Gulf Gas 2.
Rig, 1; wells drilling 2; total, 3.

NASH
Rigs
Wisdom, Rycade Pet. 8.
Nash, Rycade Pet. 10.
Wells Drilling
Flessner, Rycade Pet. 5.
Wisdom, Rycade Pet. 9.
Nash, Rycade Pet. 9.
Rigs, 2; wells drilling, 3; total, 5.

ORANGE
Wells Drilling
Carbello, Rex. Pet. 2.
Winifree, Humble O. & R. 7, 10.
Chesson, Humble Oil & Ref. 25-A.
McLean, Brownie Babbittee Oil 7.
State Land, Rycade Pet. 2-C.
Chesson, Texhoma Oil 6, 16.
Granger, Gulf Prod. 3.
Wells drilling, 9.

ORCHARD
Wells Drilling
Moore, Gulf Prod. 8.
Well, drilling, 1.

PIERCE JUNCTION
Rigs
Jones, Gulf Prod. 2.
Jones fee, Gulf Prod. 2.
Settegast, Rio Bravo Oil 6.
Prudential, Marland Oil 2, 3, 4.
Leggett, Humphrey Corp. 2.
Jones, Kouri and others 1.
Wells Drilling
Humble, Navarro Oil 2.
Bullock-Nash, Eunice & Carpenter, 1.
Leggett, Humphrey Corp. 1.
Dooley, Texas Expln. 10.
Settegast, Rio Bravo Oil 5.
Bender, Rio Bravo Oil 1.
Jones, Gulf Prod. 1.
Bender, J. F. Bashara 3.
Higgins, J. F. Bashara 2.
Rigs, 8; wells drilling, 9; total, 17.

PIEDRAS PINTAS
Rigs
Walsh, Humble Oil & Ref. 7.
Wells Drilling
——, Humble Oil & Ref. 2.
Speer, Magnolia Pet. 1.
Rig, 1; wells drilling, 2; total, 3.

SPINDLETOP
Rigs
McLean, Atlantic Oil Prod. 14, 16, 17.
T. & N. O., Rio Bravo Oil 54, 100.
McLean, Sun Co. 8.
Quinn, Plummer Oil 1.
Fee, Magnolia Pet. 2.
Gladys, Dennis Oil 1.
Weed, Gulf Prod. 6.
Wells Drilling
McLean, Atlantic Oil Prod. 10, 11, 12, 15.
Rush, Deep Sand Oil 3.
Gordon, Paggi & Co. 1.
T. & N. O., Rio Bravo Oil 50, 53.
H. Garrick, New Beaumont Oil 1.
McLean, Sun Co. 1, 2, 3, 6, 7.
Banks, Turnbow Oil 2.
Fee, Yount Lee Oil 9, 12.
McFaddin, Yount Lee Oil, 15, 17, 18.
Gladys, Yount Lee Oil 9, 10, 11, 12.
Davis, Yount Lee Oil 4.
Mann, Gulf Prod. 5, 6.
Jack Duff, Gulf Prod. 3, 4.
Oakwood, Gulf Prod. 7, 8.
Roche, Gulf Prod. 6, 7.
Weed, Gulf Prod. 8, 9, 10.
Rigs, 10; wells drilling, 36; total, 46.

SARATOGA
Well Drilling
Deutser, Cotton Oil 1.
Well drilling, 1.

SOUR LAKE
Rigs
Hardin, Lake View Oil 52.
Ebbetts, Gulf Prod. 1.
Bashara, Lake Graham Oil 19.
Wells Drilling
Bashara, Humphrey Corp. 1-G, 5-B, 1-C.
Oxford-Kelly, Humphrey Corp. 2.
Geiseke, Humphrey Corp. 1.
Gordon, Humphrey Corp. 1.
McLean, Gulf Prod. 2.
Jackson, Gulf Prod. 2, 3, 4.
Thomson, Gulf Prod. 1.
Hautier, Hull Oil 1.
Merchants Orange Pet. 2.
Fee, The Texas Company 304.
Rigs, 3; wells drilling, 14; total, 17.

SOUTH LIBERTY
Rigs
Welder, Humble Oil & Ref. 5.
Stailt, The Texas Company 6.
Mitchell, Gulf Prod. 1.
Wells Drilling
Tadhole, Associated Oil 1.
Barrett, Vacuum Oil 9.
Stailt, The Texas Company 5.
Rigs, 3; wells drilling, 3; total, 6.

VINTON
Rig
G. N. G., Gulf Ref. 64.
Wells Drilling
Gray, The Texas Company 3.
Vincent, The Texas Company 17.
Vincent, Morris Klean 7.
Star, Gulf Ref. 42.
Rescue, Vinton Pet. 18.
Rig, 1; wells drilling, 5; total, 6.

WEST COLUMBIA
Wells Drilling
Hogg, The Texas Company 82.
Abrams, The Texas Company 12.
Masterson, Hyde Prod. 2.
Wells drilling, 3.

LOUISIANA-ARKANSAS

Summary of Completions and Operations

County—	Comp.	Prod.	Dry	Gas	Rig	Dlg.	Tot
Union	51	2,496	7	3	14	48	62
Ouachita	15	1,290	1	1	3	14	17
Columbia	0	0	0	0	1	4	5
Nevada	3	300	0	0	3	7	10
Miscl.	1	0	1	0	0	9	9
Total Oct.	70	4,086	9	4	21	82	103
Total Sept.	73	2,569	16	7	31	87	118
Difference	3	1,517	8	3	10	5	15

NORTH LOUISIANA
Summary of Completions and Operations

Parish—	Comp.	Prod.	Dry	Gas	Rig	Dlg.	Ttl
Bossier	3	3	1	1	1	3	4
Caddo	24	5,839	7	3	13	42	55
Claiborne	1	0	1	0	2	2	4
De Soto	1	1	0	0	5	5	5
Grant	1	25	0	0	4	1	5
La Salle	34	4,480	9	0	7	19	26
Monroe Dist.	10	Gas	2	8	8	13	21
Natchitoches	8	0	8	0	3	5	8
Richland	1	0	1	0	2	3	5
Webster	2	0	0	2	2	6	8
Winn	1	675	4	0	2	4	6
Miscl.	1	0	1	0	4	13	17
Total Oct.	94	11,021	35	14	48	116	164
Total Sept.	92	4,577	40	10	49	123	172
Difference	2	6,444	5	4	1	7	8

ARKANSAS

UNION COUNTY
COMPLETIONS

16-16-15 Cook, Gladys Belle Oil Co. 5-A 90
10-16-15 Giller, Hollayfield and McFarland 13 dry
8-16-16 Childs, Magnolia Pet. Co. 3 30
4-16-15 Hays, The Texas Company 8 154
20-17-16 Goodwin, Humble O. & R. 2 12
20-17-16 Halsey, Magnolia Pet. Co. 5 20
16-17-16 Graham, Revenger Oil Corp. 5 25
3-17-16 Slaughter, Southern C. O. P. Co. 5-B 20
21-17-16 Snydor, Unity Pet. Co. 2 25
21-17-16 Snydor, Unity Pet. Co. 3 25
9-17-16 Dumas, Rovenger Oil Corp. 3 20
21-17-16 Stocks, Ohio Oil Co. 3 35
21-17-16 Parker, Imperial O. & G. Co. 2 14
21-17-16 Parker, Imperial O. & G. Co. 3 11
6-16-16 Werner, Gulf Ref. Co. 48 10
10-16-15 Lawton, Federal Pet. Co. 9-A 40
3-16-15 Graves, Lion O. & R. Co. 10-A 44
4-16-15 Calloway, The Texas Company 8 350
21-17-16 Snydor, Unity Pet. Co. 1 25
9-16-15 Flenniken, Sunny Jim Oil Co. 3 10
33-16-16 Murphy, Simms Oil Co. 1 15
21-17-16 Goodwin, Reynolds and Marr 4 10
26-17-16 Goodwin, Imperial O. & G. Co. 1 dry
20-17-16 Goodwin, Humble O. & R. Co. 3 17
16-16-15 Cook, Simms Oil Co. 12 50
22-18-13 Peck, Tharpe et al 1 dry
4-18-16 Walt, W. H. Stoltz 1 dry
9-16-15 Hardy, Standard Oil Co. 37 300
31-15-16 Stout Lumber Co., Dyer Bros. 6-A 15
4-16-15 Hardy-Murphy, Gulf Ref. Co. 43 130
18-16-15 Smith, F. C. Henderson 3 dry
17-17-16 Mitchell, Lion O. & R. Co. 17-A gas
20-17-16 Halsey, Magnolia Pet. Co. 6 4
17-17-16 Slaughter, Magnolia Pet. Co. 3-A gas
8-16-15 Bilyew, Pure Oil Co. 7 300
3-17-16 Slaughter, Southern C. O. P. Co. 6-B 15
15-16-15 Wells, Southern C. O. P. Co. 5-A 75
4-16-16 Saxon, The Texas Company 4. 45
21-17-16 Snydor, Unity Pet. Co. 4 18
22-17-13 McGough, Wingfield et al 1 dry
6-18-13 Cordell, Phillips Pet. Co. et al 2 55
10-16-15 Lawton, Natural G. & F. Corp. 7-B 150
3-16-15 Hardy-Murphy, Gulf Ref. Co. 42 160
10-16-15 Giller, Hollayfield & McFarland 14 50
7-16-15 Tatum, S. Cook 9 gas
8-16-16 Hesslar, Magnolia Pet. Co. 4 55
10-16-15 Lawton, A. H. Ramage 6-C dry
9-17-16 Dumas, Rovenger Oil Corp. 9 10
21-17-16 Stocks, Ohio Oil Co. 4 17
21-17-16 Stock, Imperial O. & G. Co. 1 30
21-17-16 Snydor, Humble O. & R. Co. 2 25

Wells completed 51
Production 2496
Dry 7
Gas 3

OUACHITA COUNTY

28-15-15 Hildebrandt, Humble O. & R. Co. 10 100
2-14-18 Ratch & Cartier, J. D. Reynolds 3 dry
34-15-15 Snyder, Sure Oil Co. 4 250
33-15-15 Joyce, Phillips Pet. Co. 16 gas
31-15-19 Hall, Ohio Oil Co. 5 32
28-15-15 Berg, Roxana Pet. Corp. 7 90
33-15-15 Umsted, Gulf Refining Co. 23-A 125
33-15-17 Clawson, A. Meek 3 25
31-15-19 Watson, Magnolia Pet. Co. 6 5
31-15-19 Betty Hall, Ohio Oil Co. 4 58
4-16-15 Hays, Lion O. & R. Co. 5 100
33-15-15 Umsted, Gulf Ref. Co. 22-A 100
32-15-15 Goodwin, Humble O. & R. Co. 12 300
32-15-15 Umsted, Standard Oil Co. 7-B 60
27-15-16 Neeley, The Texas Company 7 45

Wells completed 15
Production 1290
Dry 1
Gas 1

NEVADA COUNTY

1-14-21 Groves, Humble O. & R. Co. 2-B 125
11-14-21 Wallace, Autrey Oil Co. 1 abn.loc.
12-14-21 Groves, Wright Oil Co. 1 50
9-14-21 McKinney, Autrey Oil Co. 1 125

Wells completed 4
Production 300
Abandoned 1

MISCELLANEOUS

16-11-14 Guidor, Delmar Oil Co. 1 dry

LOUISIANA COMPLETIONS
BOSSIER PARISH

23-19-11 Strange, Olmsted et al 10 dry
14-19-11 Larkin, R. L. Crook 4 gas
17-18-11 Burckhalter, Henderson et al 1 abn.loc.
10-19-11 Elston, Autrey Oil Co., 15-B 2

Wells completed 4
Production 2
Gas 1
Abandoned 1

CADDO PARISH

24-21-15 Dillon, Magnolia Pet. Co. 17 1200
23-22-15 Peak, Bayou State Oil Co. 23 30
34-18-16 Hammon, Owl Oil Co. 1 gas
4-17-16 Wilburn, Owl Oil Co. 1 gas
36-22-16 Powell, Ramsey et al 1 15
36-22-16 Powell, Ramsey et al 2 dry
15-21-15 Vespy, Lewis Oil Corp. 8 12
12-21-15 E. K. Smith, Ohio Oil Co. 20 22
3-20-16 Perry, The Texas Company 3 8
7-21-14 E. K. Smith, Ohio Oil Co. 22 150
22-20-16 Ferry Lake, Gulf Ref. Co. 253 47
12-21-15 E. K. Smith, Ohio Oil Co. 21 10
15-17-14 Cunningham, Maine Drilling Co. 1 dry
9-20-16 Caddo L. B., W. D. Chew 1-A dry
2-20-16 Dambley, H. P. Burford 1 abn.loc.
15-20-15 Hunsicker, Victor Wenzell 1 abn.loc.
14-20-15 Curtis, The Texas Company 1 3600
14-20-15 Wemple, Magnolia Pet. Co. 1 630
15-20-16 Ferry Lake, Gulf Ref. Co. 256 gas
29-20-16 Ferry Lake, Gulf Ref. Co. 257 10
31-21-15 Louisiana Oil Co., Richardson Oil Co. 3 30
2-19-14 Byrd, Gulf Ref. Co. 1 dry
22-20-16 Ferry Lake, Gulf Ref. Co. 254 75
29-21-15 Spell, Magnolia Pet. Co. 1 dry
23-21-15 C. M. L. Co., The Texas Company 40 dry
24-21-16 Crystal Fee, Unity Pet. Co. 4 dry

Wells completed 24
Production 5839
Dry 7
Gas 2
Abandoned 2

CALDWELL PARISH

22-12-3e Louisiana Central, Roxana Pet. Corp. 1 dry
20-13-6e Caldwell Lumber Co. Southern C. O. P. dry
16-11-2e Love, Wright et al 1 dry

CLAIBORNE PARISH

20-21- 8 King, Shaw and Ruch 1 dry

DE SOTO PARISH

27-12-11 Bond, Magnolia Pet. Co. 1 dry

GRANT PARISH

17-19-1e Swope, Gulf Ref. Co. 2 25

LA SALLE PARISH

7-10-2e Urania, Pima Pet. Co. 8-B dry
33-10-3e Louisiana Central, Cherokee Pet. Co. 3 dry
7-10-2e Urania, Oil Operators Trust 6 600
2- 9-1e Urania, H. L. Hunt 2 500
2- 9-1e Griswold, H. L. Hunt 4 50
8-10-2e Urania, Catalina Oil Co. 2 50
3- 9-1e Griswold, Keen & Wolf Oil Co. 30
20-10-2e Urania, Natural Gas & Fuel Corp. M-5 20
20-10-2e Urania, Natural Gas & Fuel Corp. M-7 700
20-10-2e Urania, Natural Gas & Fuel Corp. M-8 dry
26-10-1e Tullos, Natural Gas & Fuel Corp. 5 30
26-10-1e Russell, Natural Gas & Fuel Corp. A-5 75
26-10-1e Russell, Natural Gas & Fuel Corp. A-6 55
20-10-2e Urania, Natural Gas & Fuel Corp. M-6 dry
26-10-1e Pendarvis, Shreveport Oil Corp. 2 25
25-10-1e Russell, Sherman et al 4 abn
26- 8-1e L. & A., Tunica Pet. Co. A-13 dry
11- 9-1e Zenoria, Montague Oil Co. 5 200
26-10-1e Pendarvis, Shreveport Oil Corp. 3 75
2- 9-1e Urania, Wetherbee et al 5 25
7-10-2e Urania, Hunt, McCurry & Zoder 6 abn
36-10-1e King, Wooten et al 1 75
25-10-1e Tremont, Louisiana Oil Refining Corp. B-35 175
23-9- 1e Taylor, Henry Jones 2 dry
26-10-1e Smith, Finn & House 2 50
3- 9-1e Griswold, Keen & Woolf Oil Co. 3 dry
3-9 -1e Urania, Weatherbee et al B-1 50
8-10-2e Urania, Catalina Oil Co. 1 300
7-10-2e Urania, Pima Pet. Corp. B-9 800
7-10-2e Urania, Hartzanzo Oil Co. 1 150
3- 9-1e Griswold, Keen & Woolf Oil Co. 1 40
17- 7-2e L. & A., Tunic Pet. Co. A-12 dry
2- 9-1e Urania, Geo. W. Weatherbee 5 75
36-10-1e King, O. F. Whittaker 6 80
5-10-2e Urania, McGaha et al 1 dry
2- 9-1e Tremont, Louisiana Oil Refining Corp. C-7 250

Wells completed 34
Production 4480
Dry 9

MONROE DISTRICT

33-22-4e Tensas Delta, Natural Gas Products Co. 8 gas
6-19-5e Fee, Ladell et al 34 gas
12-19-4e Kerr, Central Co., Inc. 2 gas
7-19-4e Cole, Palmer Corp. 4 gas
5-19-1e Nelson, Gulf Refining Co. 1 dry
26-20-5e Clarke, United Carbon Co. 1 gas
18-23-1e Frost Johnson, Clark Creek Oil Co. 1 dry
24-21-8e Cooperage, Standard Oil Co. 1 ?cd
20-19-4e McErwin, Maurey Drill. Co. 4 gas
17-19-4e Fee, Hatcher & Evans 3 gas
30-17-1e Grang Pace Fee, George L. Pace et al 1 abn

Wells completed 11
Production 0
Dry 2
Gas 2
Gas production 72,000,000
Abandoned 2

NATCHITOCHES PARISH

20- 8-8w L. L. L. L. Co., Ohio Oil Co. 1 dry
4- 7-7 Fee, Weaver Bros. Lbr. Co. 1 dry
85- 7-6 Nona Roge, Humble O. & R. Co. 1 dry
96- 8-6w Prudhome, Clem Clark 1 dry
21- 7-9 L. L. L. L. Co. Davidson et al 1 dry
48- 8-6 Person, Humble O. & R. Co. 1 dry
39- 7-7 L. L. L. L. Co. Gulf Ref. Co. A-1 dry
78- 7-5w Cockfield, Brothers et al 1 dry

Wells completed 8
Dry 8

RICHLAND PARISH

3-14n-5e Tensas Delta, Roxana Pet. Corp. 1 dry

WEBSTER PARISH

22-21-10 Cox, Humble O. & R. Co. 2 gas
27-21-10 Josey and Massey, R. W. Norton 1 gas

WINN PARISH

6-10-2w Sullivan, Cedar Creek Pet. Co. 1 dry
6-10-2w Eagles, J. H. Hall 1 dry
13-11-1e Urania, Cherokee Pet. Co. 1 dry
28- 9-3w Grant, Humble O. & R. Co. 1 dry
23-10-1e Allen, Allen et al 2 150
23-10-1e Harper, O. W. Clark 9 200
26-10-1e Harper, O. W. Clark 10 300
23-10-1e Urania, Natural Gas & Fuel Corp. F-1 25

Wells completed 8
Production 675
Dry 4

MISCELLANEOUS

34-20-12e Garden Home Co., T. A. Snell et al 1 dry

LOUISIANA

BIENVILLE PARISH
Drilling

23-16-10 Thomas, Woodley & Collins 1.
Rigs
27-15-8 Cargle, Kimbrough et al 1.
BOSSIER PARISH
Drilling
19-16-11 Marshall, Palmer Corp 1.
15-19-11 Fee, George W. Wetherbee A-14.
22-23-12 Roberson, Woodley & Collins 1.
Rigs.
26-20-13 Jacobs, Tubbs et al 1.
Shut Down
23-19-11 Fee, George W. Wetherbee F-13.
CADDO PARISH
Wells Drilling
23-22-15 Peak, Bayou State Oil Co. 24.
32-21-15 Muslow Oil Co., W. H. Cook, trustee, 1.
27-22-15 Jolly, Dixie Oil Co. 1.
18-20-15 Muslow, Dixie Oil Co. 18.
13-21-15 Robertshaw, Dixie Oil Co. 81.
27-21-15 Slattery, Dixie Oil Co. 10.
31-21-15 Atkins, Golden Flood Oil Co. 2.
15-20-16 Ferry Lake, Gulf Refining Co. 252.
22-20-16 Ferry Lake, Gulf Refining Co. 255.
28-20-16 Ferry Lake, Gulf Refining Co. 258.
16-20-16 Ferry Lake, Gulf Refining Co. 259.
14-20-15 Wemple, Gulf Refining Co. 1, 2.
15-21-15 Pyron, Howard et al 1.
24-21-15 Dillon, Magnolia Pet. Co. 16.
14-20-15 Wemple, Magnolia Pet. Co. 3.
24-21-15 Bradford, Magnolia Pet. Co. 1.
1-20-16 Palo Oil Co., Morris Drilling Co. 2.
23-22-15 Allen, Standard Oil & Ref. Co. 3.
26-20-15 Youree, Superior Oil Co. 3, 4, 5.
33-21-16 Caddo Levee Board, Texas Co. 65.
23-21-15 C. M. L. Co., Texas Co. 42.
14-20-15 Curtis, Texas Co. 2, 3.
4-21-16 Harrell, Texas Co. 55.
14-21-15 Herndon, Texas Co. 7.
3-20-16 Russell, Texas Co. 12.
31-21-15 Allday, Tholl Oil Co. 1.
31-21-15 Muslow Oil Co., Fee, Thomason and Associates 2, 3.
13-21-16 Crystal, Unity Pet. Co. 1, 3, 10.
33-21-16 Crystal, Unity Pet. Co. 5.
14-21-16 Crystal, Unity Pet. Co. 6, 7.
15-20-15 Hunsicker, Victor Wenzell 3.
14-20-15 Wemple, Victor Wenzell 1, 2.
17-21-14 Sellington, Gilliam Syndicate 1.
Rigs
1-20-16 Smith, Bethany Oil & Gas Co. 1.
15-20-15 Fanny Noel, Dixie Oil Co. 1.
12-21-15 Robertshaw, Dixie Oil Co. 80.
18-17-16 Waterman Lumber Co., Magnolia Pet. Co. 1.

14-20-15 Wemple, Magnolia Pet. Co. 2, 4.
28-21-15 Murray, Ohio Oil Co. 3.
7-21-14 Smith, Ohio Oil Co. 23.
23-22-15 Allen, Standish O. & R. Co. 10.
14-20-15 Curtis, Texas Co. 4.
22-21-15 Herndon, Texas Co. 6.
13-21-16 Crystal, Unity Pet. Co. 8, 9.

Shut Down

8-19-16 L. L. S. & P. Co., Haynes Bros. 1.
9-17-16 Bryson, Owl Oil Co. 1.
3-15-15 Duke Williams, Ridge Oil Corp. 1.
22-15-12 Caddo Levee Board, Texas Co. B-1.
23-21-15 C. M. L. Co., Texas Co. 47.
32-21-15 Edson, Tholl Oil Co. 1.

CALDWELL PARISH
Drilling

22-14-4e Shaw, Himcey & Mack 1.

Shut Down

10-11-2e Louisiana Central, Cherokee Pet. Co. 1.
10-11-4e Beasley, T. K. Robbins 1.
23-13-5e Caldwell Lbr. Co., Southern Crude Oil Purchasing Co. 5.

CLAIBORNE PARISH
Drilling

14-23-8 Taylor, Gilliland Oil Co. and Ramsey D-1.
22-23-8 Milner, Ohio Oil Co. 9.

Rigs

7-19-5 Caskey, Triangle Drilling Co. 1.
8-20-7 Bullock, E. A. Underwood et al 1.

Shut Down

28-19-5 Beard, Brown et al 1.
7-19-5 Cox, Triangle Drilling Co. 1.
7-19-5 Keen, Trangle Drilling Co. 1.

DE SOTO PARISH
Drilling

12-11-16 Willingsley, Clark & Melat et al 1.
9-12-11 Jenkins, Dixie Oil Co. 1.
28-11-12 Joyner, Helm & Jarman 1.
27-11-11 Flores, Snapp et al 1.
2-12-12 Wemple, Texas Co. A-11.

Shut Down

27-14-13 Riggs, Graize & Hintze 1.

GRANT PARISH
Drilling

19- 7-1e Ball, E. H. Billeaud 1.

Rigs.

17- 9-1e Holmes, Holmes et al 2, 3.
3-8-2w L. & A., Tunica Pet. Co. 9.
8-8-1w L. & A., Tunica Pet. Co. 10.

Shut Down

15- 9-1e Matthews, H. L. Hunt 1.
16- 9-1e Rider, Keen & Woolf Oil Co. 1.
4-7-4w Calhoun, J. J. Long et al 1.
11-8-2w L. & A., Tunica Pet. Co. 8.

LA SALLE PARISH
Drilling

25-10-1e Miles, O. W. Clark 3.
23-10-1e Tullos, O. W. Clark 6.
7-10-2e Urania, Hartzanzo Oil Co. 2.
7-10-2e Urania, C. A. Hudson 1.
28-10-1e State, H. L. Hunt 5.
7-10-2e Urania, Hunt, McCurry & Zoder 5, 7.
25-10-1e Tremont, Louisiana O. & R. Corp. B-36.
11- 9-1e Zenoria, Montague Oil Co. 4.
7-10-2e Urania, Oil Operators Trust 7.
7-10-2e Hatfield, Rowe et al 1.
26-10-1e Pendarvis, Shreveport Oil Corp. 4.
18-10-2e Winberry, Sterling Inc. 2.
16-10-2e Winberry, C. W. Thompson 1.
19-10-2e Urania, Taylor, trustee, 3.
29- 7-3e L. & A., Tunica Pet. Co. A-14.
3- 9-1e Urania, Wetherbee et al B-2.
2- 9-1e Urania, Wetherbee et al 6.
36-10-1e King, Wooten et al 2.

Rigs

3- 9 1e Urania, Carter & Hurley C-1.
6-10-2e Dawson, Hog Creek Oil Co. 1.
24-10-1e Russell, Jones & Bobbs 2.
7-10-2e Hatfield, Joyce Richardson 1.
7-10-2e Kenny, H. O. Rogers 1.
7- 8-2e L. & A., Tunica Pet. Co. A-15.
26-10-1e Hardtner, O. F. Whittaker 1.

Shut Down

23-10-1e State, L. C. Coppage 1.
2- 9-1e Urania, Chal Daniels 1.
23- 8-4e White Sulphur, Jena Oil Corp. 1.
3- 9-1e Griswold, Keen & Woolf Oil Co. 3.
26-10-1e Russell, Mistrot et al 1.
7-10-2e Kinney, T. G. Randle 1.

MONROE DISTRICT
Drilling

16-21-6e School Board, Natural Gas Products Co. 1.
35-20-4e Cole Central Carbon Co. 8.
17-17-5e West Virginia, Gulf Ref. Co. 1.
17-18-4e Fee, Hatcher & Evans 5.
31-20-5e Central, T. L. Jones 1.
1-19-4e Fee, LaDell et al 35.
20-19-4e Frierson, Maurey Drilling Co. 2.
25-19-2e D'Arbonne, Ouachita Natural Gas & Oil Co. 2.
37-21-4e Allison, Ouachita Gas. Co. 7.
10-20-4e Patton, United Carbon Co. 1.
6-20-4e Peak, O. M. Grasham 1.
6-20-4e Williams, O. M. Grasham 1.
32-21-4e White, United Carbon Co. 1.

Rigs

36-20-4e Milsaps, Palmer Corp. 3.
2-19-4e Ladell, Southern Carbon Co. 4.
5-20-4e Guthrie, United Carbon Co. 2.
21-22-1e Tuguries, C. E. Camette 1.
8-23-1e Frost-Johnson, Clark Creek Oil Co. 2.
30-19-1e Hendricks, Ohio Oil Co. 1.
28-23-2e Hutch, R. W. Rhodes 1.
17-18-4e Jones, Pioneer Oil & Gas Co. 1.

Shut Down

23-15-3e Cordell, Culver et al 1.
24-18-3e Goodwin, Dickson & Frue 1.
18-19-5e Henry Lynch, Palmer Corp. 1.

NATCHITOCHES PARISH
Drilling

41-10-7 Russell, McCormick et al 1.
20-8-8w L. L. L. L. Co., Ohio Oil Co. 2.
9-10-8 Clark, Oil Operators Trust 1.
18-8-9w Fisher, E. Self 1.
31- 7-8 Moss, Texas Co. 1.

Rigs

34-10-8 Long, Hanby et al 1.
23-5-6w Clark and Morse Lbr. Co., Lawson & Pharris 1.
23-13-6e L. & A., Ohio Oil Co. 1.

Shut Down

3-13-7 Ayers, Forrest, trustee, 2.
4-11-6 Edenborn, J. F. Palmer 1.

RICHLAND PARISH
Drilling

32-17-6e England, Gulf Refining Co. 1.
33-18-8e Ches-Wyman, Gulf Ref. Co. 1.
10-14-6 Humble Bros., Roxana Pet. Corp. 1.

Rigs

2-18-9e Hawley, Aarnes et al 1.
2-15-5e Hatch, Oliver et al 1.

WEBSTER PARISH
Drilling

35-23-10 Lewis, Magnolia Pet. Co. 1.
21-21-10 Tiner, Magnolia Pet. Co. 4.
21-21-10 Turner, Magnolia Pet. Co, A-3.
22-21-10 Bank of Cotton Valley, Ohio Oil Co. 4.
29-23-11 Oakley, Smitherman & McDonald 1.
1-22-10 Munn, Southern C. O. P. Co., and Ramsey 1.

Rigs

17-19-10 Hudson, J. R. Garrison 1.
21-21-10 Turner, Magnolia Pet. Co. B-4.

Shut Down

30-19-10 Bruner, I. J. Laborde 1.

WINN PARISH
Drilling

26-10-2w L. & A., Humble O. & R. Co. 15-A.
4-12-1w Edenborn, Ohio Oil Co. 2.
27-10-1e Albritton, F. A. Shannon 1.
28-13-3w Milam, J. C. Long 1.

Rigs

35-13-3w Tremont, Dodge & Cordell 1.
16-13-1w Louisiana Central, Hyde & Nelson 1.

Shut Down

21-13-2w Sanders, Allen Drilling Co. 1.

MISCELLANEOUS
Drilling

46-10-7e Texas Delta, S. D. Hunter 1.
35-20-12 Nicholson, T. A. Snell 1.
9-12-6e Blue, Arkansas Fuel Oil Co. 1.
17-14-8e Lemon, R. W. Williams et al 1.
18-19-3w Nobles, Arkansas Fuel Oil Co. 1.
12-20-3w Davis, Buckley & Palmer 1.
12- 4-1e Voda, Libuse Oil & Gas Co. 1.
41-4n-2w Ball, Seip et al 1.
9- 7-12 Bowman, L. M. Emlet 5.
12- 4-13 Mills, Godchaux et al 1.
11- 6-11 L. L. L. L. Co., Magnolia Pet Co. 1.
23- 5-12 Wyatt Lbr. Co., Lewis & Clark Pet. Co. 1.

Rigs

13-16-2e Davis Lbr. Co., Raymond et al 1.
6-13-9 Long Bell Lbr. Co., S. M. Cagle 1.
16-14-11 Maraton, The Texas Co. 1.

Shut Down

5-15-1e Martin, Charles A. Ferguson 1.
3-14-4w Jones, El Dorado Chief Oil Co. 1.
22-17-4w Adams, Grigsby & Co. 1.
34-15-3w Horton, Clarence Houseman 1.
12-16-3w Davis Theus, Louisiana Pet. Corp. 2.
51-16-14e Yerger, Bannon et al 1.
29- 5-2e Barrow, Himcey & Mack 1.
7- 5-3w Wetermark, Minnesota Oil Corp. 1.
13-11-10 Powell, Alden Oil Co. 1.
14- 7-14 Bowman Co., L. M. Emlet 7.

UNION COUNTY
Drilling

1-17-16 Murphy, Ackerly Drilling Co. 1.
13-18-15 Hollis, Belmont et al 1.
9-18-17 Primm, Calgo Oil Co. 1.
6-18-15 LeCroy, Clark & Greer 1.
8-16-16 Fee, G. J. Childs 23.
6-18-15 Robinson, Constant Ref. Co. 4.
15-16-15 Murphy, Eason et al A-9.
15-16-15 Wells, Federal Petroleum Co. B-6.
16-16-15 Cook, Gladys Belle Oil Co. 9.
8-18-14 Van Hook, Grimes & Jones 10.
20-17-16 Slaughter, Gulf Ref. Co. A-1.
34-16-16 Matthews, W. H. Harper 1.
23-17-16 Flenniken, H. M. Harrell 7.
21-18-12 Dykes, H. L. Hunt 1.
21-17-16 Parker, Gulf Ref. Co. 4.
21-17-16 Stocks, Imperial Oil & Gas Co. 2.
17-16-15 Murphy, E. M. Jones 9.
9-16-15 Murphy, Keen & Woolf Oil Co. 3, 5.
9-16-15 Murphy, Louisiana Oil Ref. Corp. B-1.
8-16-15 Bilyew, Lion Oil & Ref. Co. C-6.
21-17-16 Werner, Lion Oil & Ref. Co. 1.
10-16-15 Lawton, Lion Oil & Ref. Co. A-8.
8-16-16 Childs, Magnolia Pet. Co. 4.
20-17-16 Halsey, Magnolia Pet. Co. 7, 8.
28-16-16 Murphy, Magnolia Pet. Co. 1.
10-18-13 Thompson, Marine Oil Co. 1.
14-19-12 Lewis, Matthews et al 1.
10-18-16 Hill, H. O. Meller, trustee, 1.
4-16-16 Hays, Murdock et al 4.
17-16-15 Vestal, Murdock et al 1.
9-18-13 Cordell, Natural Gas & Fuel Corp. 1.
6-17-16 Duke, Owens et al 1.
36-18-12 Hollis, Peer Oil Corp. 1.
24-16-15 Ezell, S. L. Ramage 1.
4-16-16 Fee, C. L. Saxon 3.
9-18-13 Simmons, Simms Oil Co. 1.
3-16-15 Graves, Southern C. O. P. Co. 10.
5-18-13 Hill, Southern C. O. P. Co. 1.
6-18-15 Reynolds, Standard Oil Co. 4.
21-17-16 Snydor, Unity Pet. Co. 5.
4-16-16 McElroy, Weiss & Simmons 1.
3-19-13 Morrison, Wingfield et al 1.
1-16-16 McDonald, F. A. Book 1.
14-16-15 Murphy, Sam Richardson, M-2.

Hardy, Standard Oil Co. 38.

Rigs

1-16-17 Lagrone, Arkansas Fuel Oil Co. 8.
6-16-16 Fee, G. J. Childs 5.
1-16-17 Hidges, W. H. Gilliland B-1.
16-16-15 Cook, Gladys Belle Oil Co. 10.
21-17-16 Snydor, Humble O. & R. Co. 4.
21-17-16 Ramsey, Imperial O. & G. Co. A-1.
21-17-16 Werner, Lion Oil & Ref. Co. 2.
7-16-16 Freeman, Magnolia Pet. Co. 2.
15-17-16 Milner, J. L. Meek 2.
21-17-16 Stocks, Ohio Oil Co. 5.
15-17-16 Harrell, Rovenger Oil Corp. 4.
5-18-13 Cordell, Superior Oil Corp. 1.
5-16-15 Flenniken, Sure Oil Co. 3.
21-17-16 Snydor, Unity Pet. Co. 6.

Shut Down

8-19-13 Howard, C. H. Allison et al 1.
8-18-12 Garner, Bonderant et al 1.

OUACHITA COUNTY
Drilling

27-15-16 Neeley, W. R. Keever 2, 3.
25-15-16 Robertson, Little Fay Oil Co. 3.
5-16-15 Goodwin, Magnolia Pet. Co. 10.
28-15-16 Hughes, A. Meek, trustee, 8.
27-15-16 Cramer, Ohio Oil Co. 19.
22-15-16 Cramer, J. D. Reynolds 3.
28-15-15 Murphy, Simms Oil Co. 6.
28-15-15 Murphy, Standard Oil Co. B-12.
32-15-15 Umsted, Standard Oil Co. B-7.
27-15-16 Hardin, Sun Oil Co. 7.
28-15-16 Schoolhouse, A. M. Sutton 2.
22-14-17 Yarbrough, Vandiver et al 1.
32-15-15 Berg, Woodley Pet. Co. 3.

Rigs

21-14-17 Reynolds, A. T. Grayson 1.
27-15-16 Cramer, Ohio Oil Co. 20.
33-15-15 Umsted, Standard Oil Co. 30.

Shut Down

13-15-17 Berg, Copenhaven, W. H. 2.
22-15-19 Davis, Arco Oil Co. 1.
22-15-19 Davis, J. D. Reynolds A-1.

COLUMBIA COUNTY
Drilling

1-16-20 Womack, Crosby et al 5.
31-17-22 Huggins, Gulf Ref. Co. 1.
29-19-20 Peter Doss, Kentucky Arkansas Pet. Co. 1.
1-16-20 Sawyer, Magnolia Pet. Co. 1.

Rigs

30-16-21 Runyon, Haynes et al 1.

Shut Down

6-18-20 Davis, Scott Phillips 2.

NEVADA COUNTY
Drilling

6-13-21 Fuller, Fruen et al 1.
16-14-21 Bodcau, Humble Oil & Ref. Co. 4.
16-14-21 Womack, Humble O. & R. Co. 1.
12-14-21 Groves, Wright Oil Co. 2.
12-14-21 Moss, Zing et al 1.
9-14-21 McKinney, Ohio Oil Co. 1.
9-14-21 McKinney, Advance Oil Co. 1.

Rigs

2-14-21 Ellis, Bemis et al 5.
1-14-21 Groves, Humble O. & R. Co. C-2.
2-14-21 Waters, Humble O. & R. Co. 1.

MISCELLANEOUS
Drilling

25-16-12 Arkansas Timber Co., Arkansas Fuel Oil Co. 1.
33-15-11 Arkansas, Magnolia Pet. Co. 1.
2-16-12 Southern Lbr. Co., Wingfield et al 1.
36-16-11 Southern Lbr. Co., Phillips Pet. Co. 1.
35-13-5 Olga, McClintock & Goodka 1.
18-19-24 Allen, Arkansas Fuel Oil Co. 5.
10-11-31 Hawkins, Mellick Oil Co. 1.
26-15-26 Dale, Lens et al 2.
17-11-25w Nichols, Frank S. Myers 2.

Shut Down

7-17-15 Fee, Pine Prairie Oil Co. 1.
20-15-7 Bledsoe, Rhodes & Kirker 1.
7-15-11 Southern Lbr. Co., McMurry et al 1.
31-10-10 Hall, Kingland Oil Co. 1.
23-10-25 Garland, Burton et al 1.
7- 2-10 Hinsley, Denham Oil Co. 1.
3-20-24 Red River, Kensaw Pet. Co. 3.
4-13-31 Waldrop, Greason et al 1.
2-13-31 Allen, Grote et al 1.
26-14-27 Priest, W. D. Nash et al 1.

LOUISIANA

BOSSIER PARISH
Wells Drilling

19-16-11 Marshall, Palmer Corp. 1.
15-19-11 Fee, S. W. Wetherbee A-14.
23-23-12 Roberson, Woodley and Collins 1.

Rigs

26-20-13 Jacobs, Tubbs et al 1.

Shut Down

23-19-11 Fee, G. W. Wetherbee A-13.

CADDA PARISH
Wells Drilling

23-22-15 Peak, Bayou State Oil Co. 24.
32-21-15 Muslow Oil Co., W. H. Cook, trustee, 1.
18-20-15 Muslow, Dixie Oil Co. 18.
27-22-15 Jolly, Dixie Oil Co. 1.
13-21-15 Robertshaw, Dixie Oil Co. 81.
27-21-15 Slattery, Dixie Oil Co. 10.
17-21-14 Sellington, Gilliam Syndicate 1.
31-21-15 Atkins, Golden Flood Oil Co. 2.
22-20-16 Ferry Lake, Gulf Refining Co. 255.
15-20-16 Ferry Lake, Gulf Refining Co. 252.
28-20-16 Ferry Lake, Gulf Refining Co. 258.
16-20-16 Ferry Lake, Gulf Refining Co. 259.
14-20-15 Wemple, Gulf Refining Co. 1, 2.
15-21-15 Pyron, Howard et al 1.
24-21-15 Dillon, Magnolia Petroleum Co. 16.
14-20-15 Wemple, Magnolia Petroleum Co. 3.
24-21-15 Bradford, Magnolia Petroleum Co. 1.
1-20-16 Pala Oil Co. fee, Morris Drilling Co. 2.
23-22-15 Allen, Standish Oil & Ref. Co. 9.
26-20-15 Youree, Superior Oil Co. 3, 4, 5.
33-21-16 Caddo Levee Board, The Texas Company 65.
23-21-15 C. M. L. Co., The Texas Company 42.
14-20-15 Curtis, The Texas Company 2, 3.
4-21-16 Harrell, The Texas Company 55.
14-21-15 Herndon, The Texas Company 7.
3-20-16 Russell, The Texas Company 12.
31-21-15 Allday, Tholl Oil Co. 1.
31-21-15 Muslow fee, Thomason et al 2, 3.
13-21-16 Crystal, Unity Pet. Co. 1, 3, 10.
23-21-16 Crystal fee, Unity Pet. Co. 5.
14-21-16 Crystal, Unity Pet. Co. 6, 7.
15-20-15 Hunsicker, Victor Wenzell 2.
14-20-15 Wemple, Victor Wenzell 1, 2.

Rigs

1-20-16 Smith, Bethany Oil & Gas Co. 1.
15-20-15 Noel, Dixie Oil Co. 1.
12-21-15 Robertshaw, Dixie Oil Co. 80.
14-20-15 Wemple, Magnolia Pet. Co. 2, 4.
28-21-15 Murray, Ohio Oil Co. 3.
7-21-14 Smith, Ohio Oil Co. 23.
23-22-15 Allen, Standish Oil & Ref. Co. 10.
14-20-15 Curtis, The Texas Company 4.
22-21-15 Herndon, The Texas Co. 6.
13-21-16 Crystal, Unity Pet. Co. 8, 9.
15-20-15 Hunsicker, Victor Wenzell 3.

Shut Down

8-19-16 L. L. S. & P. Co., Haynes Brothers 1.
13-20-15 Youree, Murphy et al 1.
9-17-16 Bryson, Owl Oil Co. 1.
3-15-15 Williams, Ridge Oil Corp. 1.
22-15-12 Caddo Levee Board, The Texas Company B-1.
23-21-15 C. M. L. Co., The Texas Company 47.
32-21-15 Edson, Tholl Oil Co. 1

CLAIBORNE PARISH
Wells Drilling

14-23- 8 Taylor, Gilliland Oil Co. and Ramsey D-1.
22-23- 8 Milner, Ohio Oil Co. 9.

Rigs

7-19- 5 Caskey, Triangle Drilling Co. 1.
8-20- 7 Bullock, E. A. Underwood et al 1.

Shut Down

28-19- 5 Beard, Brown et al 1.
7-19- 5 Cox, Triangle Drilling Co. 1.
7-19- 5 Keen, Triangle Drilling Co. 1.

DE SOTO PARISH
Wells Drilling

12-11-16 Willingsley, Clark and Melat 1.
9-12-11 Jenkins, Dixie Oil Co. 1.
28-11-12 Joyner, Helm and Jarman 1.
2-12-12 Wemple, The Texas Company A-11.
27-11-11 Flores, Snapp et al 1.

Shut Down

27-14-13 Riggs, Graize and Hintze 1.

GRANT PARISH
Wells Drilling

19- 7-1e Ball, E. H., Billeaud 1.

Rigs

17- 9-1e Holmes, Holmes et al 2, 3.
3- 8-2w L. & A., Tunica Pet. Co. 9.
8- 8-1w L. & A., Tunica Pet. Co. 10.

Shut Down

15- 9-1e Matthews, H. L. Hunt 1.
16- 9-1e Rider, Keen and Woolf Oil Co. 1.
4- 7-4w Calhoun, J. J. Long et al 1.
11- 8-2w L. & A., Tunica Pet. Co. 8.

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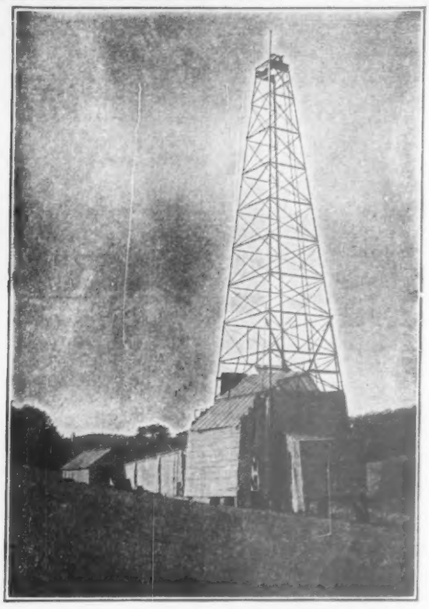

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LA SALLE PARISH
Wells Drilling
25-10-1e Miles, O. W. Clark 3.
23-10-1e Tullos, O. W. Clark 6.
7-10-2e Urania, Hartzanzo Oil Co. 2.
7-10-2e Urania, C. A. Hudson 1.
28-10-1e State, H. L. Hunt 5.
7-10-2e Urania, Hunt, McCurry and Zoder 7, 5.
25-10-1e Tremont, Louisiana Oil Ref. Corp. B-36.
11- 9-1e Zenoria, Montague Oil Co. 4.
7-10-2e Urania, Oil Operators Trust 7.
7-10-2e Hatfield, Rowe et al 1.
18-10-2e Winberry, Sterling, Inc., 2.
26-10-1e Pendarvis, Shreveport Oil Corp. 4.
16-10-2e Winberry, C. W. Thompson 1.
19-10-2e Urania, Taylor, trustee, 5.
29- 7-3e L. & A., Tunica Pet. Co. A-14.
3- 9-1e Urania, Wetherbee et al B-2, 6.
36-10-1e King, Wooten et al 2.
Rigs
6-10-2e Dawson, Hog Creek Oil Co. 1.
3- 9-1e Tremont, Louisiana Oil Ref. Corp. C-6.
7-10-2e Hatfield, Joyce and Richardson 1.
7-10-2e Kenny, H. O. Rogers 1.
26-10-1e Morrow, Shreveport Oil Corp. 1.
7- 8-2e L. & A., Tunica Pet. Co. A-15.
26-10-1e Hardtner, O. F. Whittaker 1.
Shut Down
23-10-1e State, L. C. Coppages 1.
2- 9-1e Urania, Chal Daniels 1.
23- 8-4e White Sulphur, Jena Oil Corp. 1.
3- 9-1e Griswold, Keen and Woolf Oil Co. 3.
7-10-2e Kinney, T. G. Randle 1.
26-10-1e Russell, Mistrot et al 1.

MONROE DISTRICT
Wells Drilling
16-21-6e School Board, Natural Gas Products Co. 1.
35-20-4e Cole, Central Carbon Co. 8.
17-17-5e West Virginia, Gulf Ref. Co. 1.
17-19-4e Fee, Hatcher and Evans 5.
31-20-5e Central, T. L. Jones 1.
1-19-4e Fee, Ladell et al 35.
20-19-4e Frierson, Maurey Drilling Co. 2.
18-19-5e McHenry Lynch, Palmer Corp. 1.
25-19-2e D'Arbone, Ouachita Nat. Gas. Co. 2.
37-21-4e Allison, Ouachita Nat. Gas Co. 7.
10-20-4e Patton, United Carbon Co. 1.
6-20-4e Peak, O. M. Grasham 1.
6-20-4e Williams, O. M. Grasham 1.
Rigs
36-20-4e Milsaps, Palmer Corp. 3.
2-19-4e Ladell, Southern Carbon Co. 4.
5-20-4e Guthrie, United Carbon Co. 3.
21-22-1e Tugurie, C. E. Camette 1.
8-23-1e Frost Johnson, Clark Creek Oil Co. 2.
30-19-1e Hendricks, Ohio Oil Co. 1.
28-23- 2 Hutch, R. W. Rhodes 1.
6-20-4e Williams, O. M. Grashams 1.
Shut Down
24-18-3e Goodwin, Dickson and Frue 1.

NATCHITOCHES PARISH
41-10- 7 Russell, McCormick et al 1.
20- 8-8w L. L. L. L. Co., Ohio Oil Co. 2.
9-10- 8 Clark, Oil Operators Trust 1.
31- 7- 8 Moss, The Texas Company 1.
18- 8-9w Fisher, E. Self 1.
Rigs
34-10- 8 Long, Hanby et al 1.
23- 5- 6 Clark and Morse Lumber Co., Lawson and Pharris 1.
23-13- 6 L. & A., Ohio Oil Co. 1.
Shut Down
3-13- 7 Ayers, Forrest, trustee, 2.
4-11- 6 Edenborn, J. F. Palmer 1.

RICHLAND PARISH
Wells Drilling
32-17-6e England, Gulf Ref. Co. 1.
23-18-8e Ches-Wyman, Gulf Ref. Co. 1.
10-14- 6 Humble Brothers, Roxana Pet. Corp. 1.
Rigs
3-18-9e Hawley, Aarnes et al 1.
2-15-5e Hatch, Oliver et al 1.

WEBSTER PARISH
Wells Drilling
25-23-10 Lewis, Magnolia Pet. Co. 1.
21-21-10 Turner, Magnolia Pet. Co. A-3.
21-21-10 Tiner, Magnolia Pet. Co. 4.
22-21-10 Bank of Cotton Valley, Ohio Oil Co. 4.
1-22-10 Munn, Southern Crude Oil Purchasing Co. and Ramsey 1.
Rigs
17-19-10 Hudson, J. R. Garrison 1.
21-21-10 Turner, Magnolia Pet. Co. B-4.
Shut Down
30-19-10 Bruner, I. J. Laborde 1.

WINN PARISH
26-10-2w L. & A., Humble Oil & Ref. Co. 15-A.
28-13-3w Miam, J. C. Long 1.
4-12-1w Edenborn, Ohio Oil Co. 2
27-10-1e Albritton, F. A. Shannon 1.
Rigs
35-13-3w Tremont, Dodge and Cordell 1.
16-13-1w Louisiana Central, Hyde and Nelson 1.
Shut Down
21-13-2w Saunders, Allen Drilling Co. 1.

MISCELLANEOUS
Wells Drilling
22-14-4e Shaw, Hincey and Mack 1.
23-16-10 Thomas, Woodley and Collins 1.
36-10-7e Tensas Delta, S. D. Hunter 1.
35-20-12 Nicholson, T. A. Snell 1.
9-12-6e Blue, Arkansas Fuel Oil Co. 1.
17-14-8e Lemon, R. W. Williams et al 1.
18-19-3w Nobles, Arkansas Fuel Oil Co. 1.
12-20-3w Davis, Buckley and Palmer 1.
12- 4-1e Voda, Libuse Oil & Gas Co. 1.
41- 4- 2 Ball, Seip et al 1.
12- 4-1e Nona Mills, Godchaux et al 1.
11- 6-11 L. L. L. L. Co., Magnolia Pet. Co. 1.
23- 5-12 Wyatt Lumber Co., Lewis and Clark Petroleum Co. 1.
Rigs
27-15- 8 Cargle, Kimbrough et al 1.
13-16-2e Davis Lumber Co., Raymond et al 1.
6-13- 9 Long Bell Lumber Co., S. M. Cagle 1.
16-14-11 Marston, The Texas Company 1.
Shut Down
10-11-2e Louisiana Central, Cherokee Pet. Co. 1.
10-11-4e Beasley, T. R. Robbins 1.
23-13-5e Caldwell Lumber Co. 5.
5-15-1e Martin, Charles A. Ferguson 1.
3-14-4w Jones, El Dorado Chief Oil Co. 1.
22-17-4w Adams, Grigsby & Co. 1.
34-15-3w Horton, Clarence Houseman 1.
12-16-3w Davis Theus, Louisiana Pet. Corp. 2.
51-16-14 Yerger, Bannon et al 1.
29- 5-2e Barrow, Hincey and Mack.
7- 5-3w Wettermark, Minnesota Oil Corp. 1.
3- 4-8e Lanier Oil & Lumber Co., Wheeler and Wilbanks 1.
13-11-10 Powell, Alden Oil Co. 1.
9- 7-12 Bowman, L. M. Emlet 5.
8- 7-12 Bowman, L. M. Emlet 6.
14- 7-14 Bowman, L. M. Emlet 7.

ARKANSAS
UNION COUNTY
Wells Drilling
1-17-16 Murphy, Ackerly Drilling Co. 1.
13-18-15 Hollis, Belmont et al 1.
1-16-16 McDonald, F. A. Book 1.
9-18-17 Primm, Calgo Oil Co. 1.
6-18-15 Le Croy, Clark and Greer 1.
6-18-15 Robinson, Constant Ref. Co. 4.
15-16-15 Murphy, Eason et al, A-9.
8-18-14 Van Hpok, Grimes and Jones 10.
20-17-16 Slaughter, Gulf Ref. Co. A-1.
34-16-16 Mathews, W. H. Harper trustee 1.
23-17-16 Flenniken, H. M. Harrell 7.
21-17-16 Snydor, Humble Oil & Ref. Co. 4.
21-18-12 Dykes, H. L. Hunt 1.
17-16-15 Murphy, E. M. Jones 9.
9-16-15 Murphy, Keen & Woolf Oil Co. 3.
9-16-15 Murphy, Louisiana Oil Ref. Corp. B-1.
8-16-15 Bilyew, Lion Oil & Ref. Co. C-6.
21-17-16 Werner, Lion Oil & Ref. Co. 1.
10-16-15 Lawton, Lion Oil & Ref. Co. A-8.
8-16-16 Childs, Magnolia Pet. Co. 4.
20-17-16 Halsey, Magnolia Pet. Co. 7, 8.
28-16-16 Murphy, Magnolia Pet. Co. 1.
10-18-13 Thompson, Marine Oil Co. 1.
14-19-12 Lewis, Matthews et al 1.
10-18-16 Hill, H. O. Meller 1.
4-16-15 Hays, Murdock et al 4.
17-16-15 Vestal, Murdock et al 1.
9-18-13 Cordell, Natural Gas & Fuel Corp 1.
6-17-16 Duke, Owens et al 1.
36-18-12 Hollis, Peer Oil Corp. 1.
24-16-15 Ezell, S. L. Ramage 1.
14-16-15 Murphy, Sam Richardson M-2.
4-16-16 Fee, C. L. Saxon 3.
9-18-13 Simmons, Simms Oil Co. and Sun Oil Co. 1.
3-16-15 Graves Southern Crude Oil Purch. Co. 10.
5-18-13 Hill, Southern Crude Oil Purch. Co. 1.
4-16-15 Hardy, Standard Oil Co. 38.
21-17-16 Snydor, Unity Pet. Co. 5.
3-19-13 Morrison, Wingfield et al 1.
15-16-15 Wells, Federal Pet. Co. B-6.
16-16-15 Cook, Gladys Belle Oil Co. 9.
8-16-16 Fee, G. J. Childs 4.
9-16-15 Murphy, Keen and Woolf Oil Co. 5
6-18-15 Reynolds, Standard Oil Co. 4.
21-17-16 Parker, Imperial Oil & Gas Co. 4.
21-17-16 Stocks, Imperial Oil & Gas Co. 3.
Rigs
1-16-17 LaGrone, Arkansas Fuel Oil Co. 8
6-16-18 Fee, G. J. Childs 5.
1-16-17 Hidges, W. H. Gilliland B-1.
16-16-15 Cook, Gladys Belle Oil Co. 10.
21-17-16 Snydor, Humble Oil & Ref. Co. 4.
21-17-16 Ramsey, Imperial Oil & Gas Co A-1.
21-17-16 Werner, Lion Oil & Ref. Co. 3.
7-16-16 Freeman, Magnolia Pet. Co. 3.
16-17-16 Milner, J. L. Meek 2.
21-17-16 Stocks, Ohio Oil Co. 5.
15-17-16 Harrell, Rovenger Oil Corp. 4.
5-18-13 Cordell, Superior Oil Corp. 1.
5-16-15 Flenniken, Sure Oil Co. 8.
21-17-16 Snydor, Unity Pet. Co. 6.
Shut Down
8-19-13 Howard, C. H. Allison et al 1.
8-18-12 Garner, Bonderant et al 1.
34-17-15 Telford, Crestline Oil Co. 1.
14-19-12 Lewis, Matthews et al 1.
4-16-16 McElroy, Weiss & Simmons 1.

OUACHITA COUNTY
Wells Drilling
27-15-16 Neeley, W. R. Keever 2, 3.
25-15-16 Robertson, Little Fay Oil Co. 3.
5-16-15 Goodwin, Magnolia Pet. Co. 10.
28-15-16 Hughes, A. Meek, trustee 3.
27-15-16 Cramer, Ohio Oil Co. 19.
22-15-16 Cramer, J. D. Reynolds 3.
28-15-15 Murphy, Simms Oil Co. 6.
27-15-16 Hardin, Sun Oil Co. 7.
28-15-16 Schoolhouse, A. M. Sutton 2.
22-14-17 Yarbrough, Vandiver et al 1.
32-15-15 Berg, Woodley Pet. Co. 3.
28-15-15 Murphy, Standard Oil Co. B-12
32-15-15 Umsted, Standard Oil Co. B-7
Rigs
21-14-17 Reynolds, A. T. Grayson 1.
27-15-16 Hicks, W. R. Keever 2.
27-15-16 Cramer, Ohio Oil Co. 20.
Shut Down
13-15-17 Berg, W. H. Copenhaven 3.
22-15-19 Davis, Arco Oil Co. 1.
22-15-19 Davis, J. D. Reynolds A-1.

COLUMBIA COUNTY
Wells Drilling
1-16-20 Womack, Crosby et al 5.
31-17-22 Huggins, Gulf Ref. Co. 1.
29-19-20 Peter Doss, Kentucky Arkansas Pet. Co. 1.
1-16-20 Sawyer, Magnolia Pet. Co. 1.
Rigs
30-16-21 Runyon, Haynes et al 1.
Shut Down
6-18-20 Davis, Scott Phillips 2.
35-18-19 Duffer, Smith & Compton 1.
4-26-21 Bodcau, Wingfield & Mitchell 1.

NEVADA COUNTY
Wells Drilling
6-13-21 Fuller, Fruen et al 1.
10-14-21 Bodcau, Humble Oil & Ref. Co. 4.
16-14-21 Womack, Humble Oil & Ref. Co. 1.
12-14-21 Groves, Wright Oil Co. 3.
12-14-21 Moss, Zing et al 1.
9-14-21 McKinney, Ohio Oil Co. 1.
9-14-21 McKinney, Advance Oil Co. 1.
Rigs
2-14-21 Ellis, Bemis et al 5.
1-14-21 Groves, Humble Oil & Ref. Co. C-1.
2-14-21 Waters, Humble Oil & Ref. Co. 1.
No shut downs.

Miscellaneous
Wells Drilling
25-16-12 Arkansas Timber Co., Arkansas Fuel Oil Co. 1.
33-15-11 Arkansas Timber Co., Magnolia Pet. Co. 1.
2-16-12 Southern Lumber Co., Wingfield et al 1.
36-16-11 Southern Lumber Co., Phillips Pet. Co. 1.
35-13-5 Olga, McClintock & Goodka 1.
2-13-31 Allen, Grote et al 1.
10-11-31 Hawkins, Mellick Oil Co. 1.
26-15-36 Dale, Lenz et al 2.
18-19-34 Allen, Arkansas Fuel Oil Co. 6
No rigs

WHAT AND WHERE TO BUY

A Classified Index of Advertisers in This Publication

For Alphabetical Index See Page 25

A

Absorption Plant Equipment—
American Radiator Co.
Braun, C. F., & Co.
Campbell, J. A.
Cooper, C. & G., Co.
Griscom-Russell Co.
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.

Absorption Towers—
Hope Engineering & Supply Co.
National Gas Products Co.
Newton Process Mfg. Co.

Acetylene Apparatus—
Oxweld Acetylene Co.

Acetylene—Dissolved—
Prest-O-Lite Co., Inc.

Acetylene in Cylinders—
Prest-O-Lite Co., Inc.

Agitators—
Kaw Steel Construction Co.
Petroleum Iron Works Co.

Alloy Steel (See Steel—Alloy)—

All-Steel Drilling Rigs (See Rigs)

Aluminum Bronze Powder for Paint—
Aluminum Co. of America.

Ammonia—
Mathieson Alkali Works, Inc.

Anchor Clamps (See Clamps)—

Antimonial Leads—
Eagle-Picher Lead Co.

Apparatus—Electric—
Westinghouse Electric & Mfg. Co.

Apparatus—Motor Control—
Westinghouse Electric & Mfg. Co.

Appraisers—
American Appraisal Co.

Arches—Flat Suspended—
Brady Conveyors Corp.

B

Babbitts—
Eagles-Picher Lead Co.
National Lead Co.
Ryerson, Jos. T., & Sons, Inc.

Back Up Tongs (See Tongs)—

Bailers—
Oil Well Supply Co.
Spang & Co.

Balls and Seats—
Axelson Machine Co.
Hough, Charles N., Mfg. Co.
Norris Brothers, Inc.
Northrup Equipment Co.

Balls—Bronze—
Atlas Ball Co.
Hoover Steel Ball Co.

Balls—Steel—
Atlas Ball Co.
Hoover Steel Ball Co.
Strom Steel Ball Co.

Band Wheels—Steel—
International Derrick & Equipment Co.
Marion Mch. Fdy. & Supply Co.
Moore, Lee C., & Co., Inc.
Parkersburg Rig & Reel Co.

Barrels—
Petroleum Iron Works Co.

Barytes—
National Pigments & Chemical Co.

Batteries—
National Carbon Co.

Bearings—Roller—
American Roller Bearing Co.
Timken Roller Bearing Co.

Bearings—Thrust—
Timken Roller Bearing Co.

Belting—
Bridgeport Machine Co.
Continental Supply Co.
Fenwick-Reddaway Mfg. Co.
Frick-Reid Supply Co.
Imperial Belting Co.
International Supply Co.
Murray Rubber Co.
Stanley Belting Corp.

Belting—Rubber—
Bovaird Supply Co.
Goodyear Tire & Rubber Co.
United States Rubber Co.

Bits—Disc—
U. S. Tool Co.

Bits—Fish Tail—
Federal Supply Co.
Lucey Mfg. Corp.

Bits—Rotary Disc—
Hughes Tool Co.

Bits—Rotary Rock—
Hughes Tool Co.
Reed Roller Bit Co.

Bit Steel (See Steel—Bit)—

Bleaching Powder—
Mathieson Alkali Works, Inc.

Blow-Off Valves (See Valves)—

Blowout Preventer—
Regan Forge & Engineering Co.
Stearns-Roger Mfg. Co.

Blowpipes—
Oxweld Acetylene Co.

Boiler Insulation—
Celite Products Co.

Boilers—Horizontal Return Tubular—
Brownell Co., The
Kewanee Boiler Co.
Vogt, Henry, Machine Co.

Boilers—Oil Country—
Bovaird & Seyfang Mfg. Co.
Bridgeport Machine Co.
Brownell Co., The
Centerville Boiler Works.
Continental Supply Co.
Donovan Boiler Works.
Frick-Reid Supply Co.
International Supply Co.
Kewanee Boiler Co.
Lucey Mfg. Co.
National Supply Co.
Oil Well Supply Co.
Pattin Bros. Co.
Republic Supply Co.
Titusville Iron Works

Bolted Tanks (See Tanks)—

Bolts and Nuts—
Sheffield Steel Corp.

Bolt Threading Machines—
Landis Machine Co.

Bottles—Glass—
Illinois Glass Co.

Box and Pin Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

Braces—Tool—
Dunn Mfg. Co.

Brick—Fire—
Pilbrico Jointless Firebrick Co.

Briquette Machines—
Porter & Co.
Simplex Equipment Co.

Bronze Valves (See Valves—Brass and Bronze)—

Buildings—Metals, Sectional (All Types)—
Austin Co.
Blaw-Knox Co.
Braden Co.
Butler Mfg. Co.
International Derrick & Equipment Co.
Marion Mch., Fdy. & Supply Co.
Truscon Steel Co.

Bulk Station Tanks (See Tanks)—

Bull Ropes—
Ajax Rope Co.
Columbian Rope Co.
Plymouth Cordage Co.
Wall Rope Works, Inc.

Bull Wheels—Steel—
International Derrick & Equipment Co.
Marion Mch., Fdy. & Supply Co.
Moore, Lee C., & Co., Inc.
Parkersburg Rig & Reel Co.

Burners—Gas—
Eureka Burner Co.

Burners—Oil—
Continental Supply Co.
Reid, Joseph, Gas Engine Co.

Bushings—Rotary Drive—
Wilson Oil Tools Corp.

C

Cable Bit Steel—
Andrews Steel Co.
Federal Supply Co.
Heppenstall Forge & Knife Co.

Cables—Drilling, Manila—
Ajax Rope Co., Inc.
Columbian Rope Co.
Continental Supply Co.
Frick-Reid Supply Co.
Plymouth Cordage Co.
Wall Rope Works, Inc.

Cables—Steel—
Ajax Rope Co., Inc.
Black Steel & Wire Co.
Broderick & Bascom Rope Co.
Continental Supply Co.
Frick-Reid Supply Co.
Hazard Mfg. Co.
Leschen, A., & Sons Rope Co.
Murray Tool & Supply Co.
National Supply Co.
Republic Supply Co.
Wickwire-Spencer Steel Corp.
Williamsport Wire Rope Co.

Calf Rope—
Ajax Rope Co., Inc.

Calf Wheels—Steel—
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Cannon—Oil Field—
Braden Co.

Cans—Water—
Gott, H. P. Mfg. Co.

Capping Steel—
Andrews Steel Co.

Carbon—Black Diamond—
Diamond Drill Carbon Co.
Patrick, R. S.

Cars—Tank—
American Car & Foundry Co.
General American Tank Car Corp.
Shippers' Car Line, Inc.

Cars—Tank, Leased—
American Car & Foundry Co.
North American Car Co.
Shippers' Car Line, Inc.

Casing—
Bovaird Supply Co.
Central Tube Co.
Continental Supply Co.
Emsco Derrick & Equip. Co.
Jarecki Mfg. Co.
National Supply Co.
National Tube Co.
Pittsburgh Steel Products Co.
Republic Iron & Steel Co.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.
Superior Tube Co.
Wheeling Steel Corp.

Casing—Wrought Iron—
Byers, A. M., & Co.
Reading Iron Co.
South Chester Tube Co.

Casing Elevators (See Elevators, Casing and Tubing)—

Casing Heads—
Arbon, Paul & Co.
Dresser, S. R., Mfg. Co.
Kansas City Hay Press Co.

Casing Lines—
Ajax Rope Co., Inc.
Hazard Mfg. Co.

Casing Shoes—
Baker Casing Shoe Co.
Bartlesville Supply Co.
Bridgeport Machine Co.
Guiberson Corp.
Oil Well Supply Co.

Casings—Acid Proof—
Duriron Co.

Castings—Alloy Steel—
Ohio Steel Foundry Co.
Sivyer Steel Casting Co.

Castings—Chrome Nickel Steel—
Sivyer Steel Casting Co.

Castings—Corrosion Resisting Non-Ferrous—
Hills-McCanna Co.

Castings—Electric Steel—
Ohio Steel Foundry Co.
Sivyer Steel Casting Co.

Castings—Gray Iron—
Ajax Iron Works.
American Car & Foundry Co.
Gasco Pump & Burner Mfg. Co.
Pittsburgh Boiler & Machine Co.

Castings—Steel—
Ajax Iron Works.
Chicago Steel Foundry Co.
Ohio Steel Foundry Co.
Sivyer Steel Casting Co.

Cement—Fire and High Temperature—
General Insulating & Mfg. Co.

Chains—Conveyors—
Chain Belt Co.
Link-Belt Co.

Chains—Oil Well—
Baldwin Chain & Mfg. Co.
Chain Belt Co.
Link-Belt Co.

Chains—Power Transmission—
Baldwin Chain & Mfg. Co.
Chain Belt Co.
Link-Belt Co.

Chemical Treatment Crude Oil Emulsion—
Barnickel, Wm. S., & Co.

Chlorine—Liquid—
Mathieson Alkali Works, Inc.

Circulating Heads—
Wilson Oil Tools Corp.

Clamps—Anchor—
Bartlesville Supply Co.

Clamps—Belt—
Federal Supply Co.

Clamps—Collar Leak—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.
Skinner, M. B., Co.

Clamps—Drilling—
Western Supply Co.

Clamps—Hoisting—
Newton Process Mfg. Co.

Clamps—Pipe—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Clamps—River—
Dresser, S. R., Mfg. Co.
Gasco Pump & Burner Mfg. Co.

Cloth—Wiping—
Nye Tool & Machine Works.

Clutches—Friction, Plate Type—
Twin Disc Clutch Co.

Cocks—Brass & Iron—
Lunkenheimer Co.
Walworth Co.

Cocks—Plug—
Homestead Valve Mfg. Co.

Cocks—Plug, Acid Proof—
Duriron Co.

Cocks—Water Gauge—
Shaffer, J. E., Co.
Smith Separator Co.

Coils and Bends—Pipe—
Harrisburg Pipe & Pipe Bending Co.
Midwest Pipe & Supply Co.

Compounds—Boiler—
Dearborn Chemical Co.

Compounds—Cement, Quick Setting—
Master Builders Co.
Sullivan Co.

Compounds—Joint Sealing—
Key Boiler Equipment Co.

Compounds—Oil Well Cleaning—
Sullivan Co.

Compressed Air Process—
Air Cleaning & Reaming Corp.

Compressor Cylinders (See Cylinders—Compressor)—

Compressors—Air—
Bessemer Gas Engine Co.
Clark Brothers Co.
Cooper, C. & G., Co.
Gardner Governor Co.
Ingersoll-Rand Co.
Sullivan Machinery Co.

Compressors—Ammonia—
Carbondale Machine Co.
Cooper, C. & G., Co.

Compressors—Direct Connected Motor and Gas Engine Driven
Buffalo Gasolene Motor Co.
Clark Brothers Co.
Cooper, C. & G., Co.
Miller Improved Gas Engine Co.

Compressors—Direct Driven Air and Gas—
Bessemer Gas Engine Co.
Miller Improved Gas Engine Co.

Compressors—Gas—
Bessemer Gas Engine Co.
Chicago Pneumatic Tool Co.
Clark Brothers Co.
Cooper, C. & G., Co.
Hope Engineering & Supply Co.
Ingersoll-Rand Co.
National Transit Pump & Machine Co.
Worthington Pump & Machinery Corp.

Compressors—Oil—Coke—
Porter & Company.

Concrete-Hardener and Waterproofer—
Master Builders Co.

Condenser Boxes—
Kaw Steel Construction Co.
Petroleum Iron Works Co.

Condensers—
American Radiator Co.
Chicago Pneumatic Tool Co.
National Gas Products Co.
Ross Heater & Mfg. Co.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.

Controllers—Automatic—
Brown Instrument Co.

Controllers—Liquid Level—
Fisher Governor Co., Inc.
Newton Process Mfg. Co.
Smith Separator Co.

Controllers—Pressure—
Smith Separator Co.

Controllers—Temperature—

Conveying & Elevating Machinery
Brady Conveyors Corp.

Conveyors—Bucket and Belt—
Brady Conveyors Corp.

Conveyors—Pneumatic—
Brady Conveyors Corp.

Conveyors—Portable Belt—
Barber-Greene Co.

Cooling Towers—Atmospheric—
Braun, C. F., & Co.
National Gas Products Co.

Cordage—
Bridgeport Machine Co.
International Supply Co.
Plymouth Cordage Co.

Core Drilling—
Longyear, E. J., Co.

Core Drills—
Elliott Core Drilling Co.

Core Drills—Diamond—
Longyear, E. J., Co.
Sullivan Machinery Co.

Core Drills—Diamonds For—(See Diamonds for Core Drilling)—

Coring Tools—
Reed Roller Bit Co.
Wilson Oil Tools Corp.

Coupling—Flexible—
Nuttall, R. D., & Co.
Victaulic Co. of America.

Couplings—Plain End Pipe—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Couplings—Seamless Steel—
Harrisburg Pipe & Pipe Bending Co.
Superior Tube Co.

Couplings—Steel for Casing, Line Pipe, Drill Pipe and Tubing—
Dayton Pipe Coupling Co.
Smith, A. O., Corp.

Cracking Processes—
Graver Corp.
Kellogg, M. W., Co.
Universal Oil Products Co.

Crawler Treads—
Belle City Mfg. Co.
Full Crawler Co.

Crown Blocks—
International Derrick & Equipment Co.
Lucey Mfg. Corp.
Moore, Lee C., & Co., Inc.
Parkersburg Rig & Reel Co.

Cups—Composition—
Williamsport Development Co.

Cups—Leather—
Auer, C. A.

Cutters—Pipe—
Borden Co.
Nye Tool & Machine Works.
Trimont Mfg. Co.

Cylinders—Compressor—
Hope Engineering & Supply Co.

Cylinder Stocks—
Barnsdall Refining Co.
Pure Oil Co.
Texas Company, The.

D

Dehydrating Process—
Barnickel, Wm. S., Co.

Dephlegmators—
Graver Corp.
National Gas Products Co.
Newton Process Mfg. Co.
Smith, A. O., Corp.

Depletion Reports—
American Appraisal Co.

Derricks—Steel—
Emsco Derrick & Equip. Co.
International Derrick & Equipment Co.
Marion Mch., Fdy. & Supply Co.
Moore, Lee C., & Co., Inc.
O'Brien Steel Construction Co.
Parkersburg Rig & Reel Co.
Superior Tube Co.

Derricks—Turnbuckle—
National Turnbuckle Derrick Co.

Diamonds—For Core Drilling—
Patrick, R. S.

Die Heads—Automatic Screw Cutting—
Landis Machine Co.

Die Heads—Belt Threading—
Bignall & Keeler Mch. Works.
Landis Machine Co.

Die Heads—Stationary Pipe Threading—
Bignall & Keeler Mch. Works.
Cox & Sons Co., The.
Landis Machine Co.

Diesel Engines (See Engines)—

Dies—Pipe Threading—
Bignall & Keeler Mch. Works.
Cox & Sons Co., The.
Landis Machine Co.
Nye Tool & Machine Works.

Direct Driven Pumps (See Pumps)

Disc Bits (See Bits—Disc)—

Ditchers—Pipe Line—
Barber-Greene Co.
Buckeye Traction Ditcher Co.

Draw Works—
Lucey Mfg. Corp.
National Supply Co.
Titusville Iron Works Co.

Drillers Hose (See Hose)—

Drilling & Fishing Tools—
Acme Fishing Tool Co.
Baash-Ross Tool Co.
Bovaird & Seyfang Mfg. Co.
Bovaird Supply Co.
Bridgeport Machine Co.
Brown Tool Co., Inc.
Burns Tool Co.
Continental Supply Co.
Cushing, Tim, Tool & Supply Co.
Emsco Derrick & Equip. Co.
General Oil Tools Co.
Hinderliter Tool Co.
Hughes Tool Co.
International Supply Co.
Larkin & Co.
Leidecker Tool Co.
Lucey Mfg. Corp.
Murray Tool & Supply Co.
Oil Well Supply Co.
Reed Roller Bit Co.
Regan Forge & Engineering Co.
Spang & Co.
Star Drilling Machine Co.
U. S. Tool Co.

Drilling Engines—(See Engines)—

Drilling Equipment—
Clark Brothers Co.
Hughes Tool Co.
O'Brien Steel Construction Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Reed Roller Bit Co.
Star Drilling Machine Co.

Drilling Machines—
Leidecker Tool Co.
Oil Well Supply Co.
Star Drilling Machine Co.

Drilling Tools—(See Drilling and Fishing Tools)—

Drills—Portable Air—
Chicago Pneumatic Tool Co.

Drive Shoes—
Bartlesville Supply Co.
Larkin & Co.

Drops and Seats—
Norris Brothers, Inc.

Drums (See Barrels)—

Dynamos—
Westinghouse Electric & Mfg. Co.

E

Ejectors—
Penberthy Injector Co.

Electrical Equipment—
Fairbanks-Morse & Co.
Pyle National Co.
Wico Electric Co.

Electric Drilling Equipment—
Lucey Mfg. Corp.
Westinghouse Electric & Mfg. Co.

Electric Steel Castings (See Castings—Electric Steel)—

Elevators—Casing and Tubing—
Bovaird Supply Co.
Bridgeport Machine Co.
Dunn Mfg. Co.
Lucey Mfg. Corp.
Oil Well Supply Co.
Wilson Oil Tools Corp.

Elevators—Rod—
B. & A. Specialty Co.
D. & B. Pump & Supply Co.
Dunn Mfg. Co.

Enamels—
Arco Company, The.
Detroit Graphite Co.
Sherwin-Williams Co.

Engineers—Consulting and Contracting—
Brooks Engineering Corp.
Hope Engineering & Supply Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
National Petroleum Engineering Corp.
Power Specialty Co.
Westcott & Greis.
Widdell Engineering Co.

Engineers—Fire Protection—
Brooks Engineering Corp.
Foamite-Childs Corp.

Engineers—Oil Buildings—
Austin Co.
International Derrick & Equipment Co.

Engineers—Oil Mining—
Ranney Oil Mining Co.

Engineers—Oil Treating—
Barnickel, Wm. S., & Co.
National Gas Products Co.

Engines—Crude Oil—
Continental Supply Co.
Western Machinery Co.

Engines—Diesel—
Bessemer Gas Engine Co.
Busch-Sulzer Bros. Diesel Engine Co.
Foos Gas Engine Co.
McIntosh & Seymour Corp.
Western Machinery Co.
Worthington Pump & Machinery Corp.

Engines—Drilling—
Ajax Iron Works.
Bessemer Gas Engine Co.
Bovaird & Seyfang Mfg. Co.
Brownell Co., The.
Buda Co.
Buffalo Gasolene Motor Co.
Clark Bros. Co.
Climax Engineering Co.
Franklin Valveless Engine Co.
Hercules Motor Corp.
Pattin Bros. Co.
Power Mfg. Co.
Republic Supply Co.
Titusville Iron Works Co.

Engines—Gas—
Bessemer Gas Engine Co.
Buda Co.
Buffalo Gasolene Motor Co.
Chicago Pneumatic Tool Co.
Clark Brothers Co.
Climax Engineering Co.
Continental Supply Co.
Cooper, C. & G., Co.
Emsco Derrick & Equip. Co.
Foos Gas Engine Co.
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hope Engineering & Supply Co.
Ingersoll-Rand Co.
International Supply Co.
Jones, S. M., Co.
Marion Mch., Fdy. & Supply Co.
Miller Improved Gas Engine Co.
National Supply Co.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Pattin Bros. Co.
Reid, Joseph, Gas Engine Co.
Titusville Iron Works Co.
Waukesha Motor Co.
Western Machinery Co.

Engines—Gasoline—
Buda Co.
Buffalo Gasolene Motor Co.
Climax Engineering Co.
Continental Motors Corp.
Fairbanks-Morse & Co.
Hercules Motor Corp.
International Harvester Co. of America.
Waukesha Motor Co.
Western Machinery Co.

Engines—Oil—
Bessemer Gas Engine Co.
De La Vergne Machine Co.
Fairbanks-Morse & Co.
Franklin Valveless Engine Co.
Ingersoll-Rand Co.
International Harvester Co. of America.
McIntosh & Seymour Corp.
National Supply Co.
Oil Well Supply Co.
Power Mfg. Co.
Reid, Joseph, Gas Engine Co.
Western Machinery Co.

Engines—Semi-Diesel, Oil—
Chicago Pneumatic Tool Co.

Engines—Steam—
Ajax Iron Works.
Frick-Reid Supply Co.
Lucey Mfg. Corp.
National Supply Co.
Oil Well Supply Co.

Evaporators—
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.

F

Fabricators for Gasoline Plants and Refineries—
National Gas Products Co.
Stearns-Roger Mfg. Co.

Filters—Oil—
Burt Mfg. Co.

Fire Extinguishers—
Foamite-Childs Corp.

Fire Extinguishers—Recharge Service—
Foamite-Childs Corp.

Fishing Tools (See Drilling and Fishing Tools)—

Fittings—Dropped Forged Steel—
Vogt, Henry, Machine Co.

Fittings—Forged Steel—
Central Forging Co.

Fittings—Malleable & Cast Iron—
Bovaird Supply Co.
Crane Co.
Frick-Reid Supply Co.
Walworth Co.

Fittings—Pipe—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.
Gasc Pump & Burner Mfg. Co.
Jarecki Mfg. Co.
Kellogg, M. W., Co.
Kennedy Valve Mfg. Co.
Metric Metal Works.
Oil Well Supply Co.
Reading Steel Casting Co.
Republic Supply Co.
United Iron Works, Inc.
Victaulic Co. of America.
Walworth Co.

Fittings—Pipe Acid Proof—
Duriron Company.

Fittings—Steel—
Dayton Pipe Coupling Co.
Kerotest Mfg. Co.
Ohio Steel Foundry Co.
Walworth Co.

Flanges—Brass, Iron and Steel—
Jefferson Union Co.
Metric Metal Works.
Walworth Co.

Flange Unions—
Dart, E. M., Mfg. Co.
Gasc Pump & Burner Mfg. Co.

Flashlights—
National Carbon Co.

Floating Roofs and Docks—
Chicago Bridge & Iron Works.

Floodlights—
Pyle-National Co.

Forging Billets—
Andrews Steel Co.
Harrisburg Pipe & Pipe Bending Co.
Heppenstall Forge & Knife Co.

Forging—
Champion Machine & Forging Co.

Fuel Oil (See Oil—Fuel)—

Fullers Earth—
Sinclair Refining Co.

G

Gas Holders—
Chicago Bridge & Iron Works.

Gaskets—
McCord Radiator & Mfg. Co.

Gaskets—Fibre—
Durabla Mfg. Co.
Garlock Packing Co.

Gas Masks & Safety Appliances—
Mines Safety Appliance Co.

Gasoline—
Crown Central Petroleum Co.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
Skelly Oil Co.

Gasoline—Natural—
Chestnut & Smith Corp.
National Gas Products Co.
Skelly Oil Co.
Warren Petroleum Co.

Gasoline Plant Equipment—
Bessemer Gas Engine Co.
Clark Brothers Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.
Widdell Engineering Co.

Gas Regulating Casinghead—
Davis, G. M., Regulator Co.
National Gas Products Co.

Gas Scrubbers—
National Gas Products Co.
Newton Process Mfg. Co.

Gauge Glass—High Pressure—
Durabla Mfg. Co.

Gauge Poles—
Marsh Gauge Pole Co.
Missouri Woodworking Co.

Gauges—Automatic Tank—
Brooks Engineering Co.

Gauges—Draft—
Brown Instrument Co.

Gauges—Oil—
Penberthy Injector Co.

Gauges—Pressure and Vacuum—
Bristol Co.
Brown Instrument Co.
Equitable Meter & Mfg. Co.
Foxboro Co., Inc.
Metric Metal Works.

Gauges—Test—
Equitable Meter & Mfg. Co.
Metric Metal Works.

Gear Driven Pumps (See Pumps)

Gears—Cut—
Nuttall, R. D., & Co.

Gears—Reduction—
Emsco Derrick & Equip. Co.
Nuttall, R. D., & Co.

Gears—Reverse—
Emsco Derrick & Equip. Co.

Generators—
Westinghouse Electric & Mfg. Co.

Generators—Acetylene—
Oxweld Acetylene Co.

Generators—Turbine—
Moon Manufacturing Co.
Pyle-National Co.
Westinghouse Electric & Mfg. Co.

Glassware—Chemical for Laboratory Use—
Illinois Glass Co.

Governors—
Equitable Meter & Mfg. Co.
Gardner Governor Co.

Governors—Boiler Feed—
Chapin-Fulton Mfg. Co.
Fisher Governor Co.

Grating—Steel—
Blaw-Knox Co.

Grey Iron Castings (See Castings)

H

Hammers—Chipping and Calking Pneumatic—
Chicago Pneumatic Tool Co.

Hammers—Riveting Pneumatic—
Chicago Pneumatic Tool Co.

Hangers—Iron and Steel—
Continental Supply Co.
Dodge Mfg. Corp.

Hangers—Tubing—
Hercules Tool Co.

Hatches—Gauges and Thief—
Oil Conservation Engineering Co.

Heat Exchangers—
Carbondale Machine Co.
Griscom-Russell Co.
Hope Engineering & Supply Co.
National Gas Products Co.
Nelson Pr. Steam Mfg. Co.
Ross Heater & Mfg. Co.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.

Heat Interchangers—Fluid—
Braun, C. F., & Co.
Ross Heater & Mfg. Co., Inc.

Hoists—Pneumatic, Geared and Universal—
Chisholm-Moore Mfg. Co.
Yale & Towne Mfg. Co.

Hoists—Portable—
Chisholm-Moore Mfg. Co.
Ford Chain Block Co.
Sullivan Machinery Co.
Wright Mfg. Co.
Yale & Towne Mfg. Co.

Hooks for Rods and Tubing—
B. & A. Specialty Co.
Dunn Mfg. Co.

Hose—
Fenwick-Reddaway Mfg. Co.

Hose—Drillers—
Goodrich, B. F., Rubber Co.
United States Rubber Co.

Hose—Oil Suction and Discharge
Goodrich, B. F., Rubber Co.
United States Rubber Co.

Hose—Rubber—
Goodyear Tire & Rubber Co.
United States Rubber Co.

Hypochlorite of Lime—
Mathieson Alkali Works, Inc.

I

Injectors—
Penberthy Injector Co.

Inspectors—Pipe—
Hunt, Robert W., Co.

Insulation Materials—
General Insulating & Mfg. Co.
Johns-Manville, Inc.

Insurance—Fire—
Oil Insurance Association.

Insurance—Tornado—
Oil Insurance Association.

Iron—Ingot—
American Rolling Mill Co.

J

Jacks—Hydraulic—
Bridgeport Machine Co.

Jacks—Lifting—
Templeton, Kenly & Co., Ltd.

Jacks—Pumping—
American Mfg. Co. of Texas.
American Well Works.
Bessemer Gas Engine Co.
Braden Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
Kansas City Hay Press Co.
Norris, W. C.
Spang & Co.

Jars—
Arbon, Paul & Co.
Bridgeport Machine Co.
Spang & Co.

Jar Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

K

Kerosene—
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.

L

Lacquers—
Arco Company, The.
Sherwin-Williams Co.

Lanterns—Electric—
Delta Electric Co.

Lead and Mixed Metal Products—
Eagle-Picher Lead Co.
National Lead Co.

Lead in Oil—
Eagle-Picher Lead Co.
National Lead Co.

Lead Wool and Containers—
Eagle-Picher Lead Co.

Lighting Equipment—
Pyle-National Co.
Westinghouse Electric & Mfg. Co.

Litharge—
Eagle-Picher Lead Co.
National Lead Co.

Loaders—Trucks—
Barber-Greene Co.

Long Distance Telephone—
American Telephone & Telegraph Co.

Lubricating Devices—
McCord Radiator & Mfg. Co.

Lubricators—
Ajax Iron Works.
Lunkenheimer Co.

Lubricators—Force Feed—
Hills-McCanna Co.
McCord Radiator & Mfg. Co.
Manzel Brothers Co.

M

Machine Tools—
Ryerson, Jos. T., & Sons, Inc.

Manholes—Tank—
Brooks Engineering Corp.

Manifolds—
Reid, Joseph, Gas Engine Co.

Meters—Gas—
Equitable Meter & Mfg. Co.
Foxboro Co., Inc.
Metric Metal Works.
Pittsburgh Meter Co.
Roots, P. H. & F. M., Co.
Westcott & Greis.

Meters—Electric—
Brown Instrument Co.

Meters—Gasoline—
Pittsburgh Meter Co.

Meters—Oil—
Pittsburgh Meter Co.

Molded Goods—Rubber—
Garlock Packing Co.
Goodyear Tire & Rubber Co.

Motors—Electric—
Fairbanks-Morse & Co.
Westinghouse Electric & Mfg. Co.

Motors—Gasoline (See Engines—Gasoline)—

N

Naphtha—
Pure Oil Co.

Natural Gasoline (See Gasoline—Natural)—

Natural Gasoline Plant Equipment—
Campbell, J. A.
Cooper, C. & G., Co.
Griscom-Russell Co.
National Gas Products Co.
Roots, P. H. & F. M., Co.
Ross Heater & Mfg. Co., Inc.
Smith Separator Co.
Westcott & Greis.

Nitrogen—
Linde Air Products Co.

Nozzles—Spray—
Power Plant Equipment Co.

O

Oil and Gas Pipe Line Construction—
Hope Engineering & Supply Co.

Oil Burners (See Burners—Oil)—

Oil Field Equipment—
Baker Casing Shoe Co.
Bridgeport Machine Co.
Gasc Pump & Burner Mfg. Co.
International Derrick & Equipment Co.
Iron King Mfg. Co.
Kaw Steel Construction Co.
National Supply Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Reed Roller Bit Co.
Regan Forge & Engineering Co.
Reid, Joseph, Gas Engine Co.
Republic Supply Co.
Simplex Euipment Co.
Trumble Gas Trap Co.

Oil—Fuel—
Crown Central Petroleum Corp.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
Texas Company, The.

Oil—Gas—
Crown Central Petroleum Co.
Gulf Refining Co.
Pure Oil Co.
Sinclair Refining Co.
Texas Company, The.

Oil—Lubricating—
Barnsdall Refining Co.
Crown Central Petroleum Corp.
Empire Refineries, Inc.
Gulf Refining Co.
Humble Oil & Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
Skelly Oil Co.
Texas Company, The.

Oil—Tractor—
Barnsdall Refining Co.
Gulf Refining Co.
Pure Oil Co.
Skelly Oil Co.

Oiling Devices—
Lunkenheimer Co.

Oil Meters (See Meters)—

Oil Piping Equipment (See Fittings)—

Oil Reclaiming Process—
Barnickel, Wm. S., & Co.

Oil Well Cementing—
Halliburton Oil Well Cementing Co.

Oil Well Tools—
D. & B. Pump & Supply Co.
Hinderliter Tool Co.
Reed Roller Bit Co.
Titusville Forge Co.
U. S. Tool Co.

Over Shots—
Reed Roller Bit Co.
Regan Forge & Engineering Co.

Oxygen—
Linde Air Products Co.

P

Packer Release—
Acme Fishing Tool Co.

Packers—
Goodyear Tire & Rubber Co.
Guiberson Corp.
Larkin & Co.
Layne & Bowler Co.
Meier, H. C., Lubricating Co.
Oil Well Supply Co.
Regan Forge & Engineering Co.
Spang & Co.
United States Rubber Co.

Packing—
Crane Packing Co.
Durabla Mfg. Co.
Goodrich, B. F., Rubber Co.
Imperial Belting Co.
Johns-Manville, Inc.

Packing—Metallic—
Crane Packing Co.
Garlock Packing Co.

Paints—
Aluminum Co. of America.
American Asphalt Paint Co.
Arco Company, The
Detroit Graphite Co.
Dixon, Joseph, Crucible Co.
Du Pont de Nemours, E. I. & Co., Inc.
Eagle-Picher Lead Co.
Eclipse Paint & Mfg. Co.
Hill, Hubbell & Co.
National Lead Co.
Sherwin-Williams Co.
St. Louis Surfacer & Paint Co.

Pipe—Cast Iron—
Greenspon's Jos., Sons Iron & Steel Co.
International Supply Co.
U. S. Cast Iron Pipe & Fdy. Co.

Pipe—Lead Chemical and Antimonial—
Eagle-Picher Lead Co.
National Lead Co.

Pipe—Steel—
Central Tube Co.
Continental Supply Co.
Greenspon's Jos., Sons Iron & Steel Co.
Jarecki Mfg. Co.
Kellogg, M. W., Co.
Murray Tool & Supply Co.
National Supply Co.
National Tube Co.
Republic Iron & Steel Co.
Ryerson, Jos. T., & Sons, Inc.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.
Superior Tube Co.
Taubman Supply Corp.
Wheeling Steel Corp.

Pipe—Wrought Iron—
Byers, A. M., Co.
Frick-Reid Supply Co.
Greenspon's, Jos., Sons Iron & Steel Co.
Oil Well Supply Co.
Reading Iron Co.
South Chester Tube Co.
Superior Tube Co.
Taubman Supply Corp.

Pipe and Nipple Threading Machines—
Bignall & Keeler Mch. Works.
Cox & Sons Co., The
Landis Machine Co.
Ryerson, Jos. T., & Sons, Inc.
Standard Engineering Co.

Pipe Clamps (See Clamps—Pipe)

Pipe Grips—
Larkin & Co.

Pipe Headers—
National Tube Co.
Newton Process Mfg. Co.

Pipe Line Coatings—
Hill, Hubbell & Co.

Pipe Line Construction Tools—
National Transit Pump & Machine Co.

Pipe Line Equipment—
Gasc Pump & Burner Mfg. Co.

Pipe Screwing Machines—
Buckeye Traction Ditcher Co.

Pipe Straightening Machines—
W-K-M Co., Inc.

Pipe Suspension Device—
Stearns-Roger Mfg. Co.

Pipe Threaders—Power—
Williams Tool Corp.

Pipe Tools—
Armstrong Brothers Tool Co.
Nye Tool & Machine Works
Ridge Tool Co.
Walworth Co.

Piping—Fabricated—
Midwest Piping & Supply Co.

Piping—Hard Rubber—
United States Rubber Co.

Piping—Steel & Iron—
Crane Co.
Greenspon's Jos., Sons Iron & Steel Co.
Power Piping Co.

Pistons—
Guiberson Corp.
Heppenstall Forge & Knife Co.

Pistons—Expansion—
Wilson Oil Tools Corp.

Pistons—Slush Pump—
Guiberson Corp.

Plugs—Bottom Water—
Guiberson Corp.

Pre-Heaters—
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.

Preservatives—Asphalt—
American Asphalt Paint Co.

Pulleys—Wood, Iron and Steel—
Continental Supply Co.
Dodge Mfg. Co.

Pulling Machines—
Iron King Mfg. Co.
National Supply Co.
Safety Pulling Machine Co.

Pumpers—Long Stroke—
Farley Machine Co.

Pumping and Pulling Motors—Electric—
Westinghouse Electric & Mfg. Co.

Pumping Equipment—
American Well Works
Axelson Machine Co.
Byron Jackson Pump Mfg. Co., Inc.
D. & B. Pump & Supply Co.
Farley Machine Co.
Goulds Pumps, Inc.
Jones, S. M., Co.
Myers, F. E., & Bros., Co.
Northrup Equipment Co.
Oil Well Supply Co.
Prescott Co.
Ratigan, J. F., Co.
Waukesha Motor Co.

Pumping Gear Units—
Nuttall, R. D., & Co.

Pumping Powers—
Bessemer Gas Engine Co.
Buda Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
Kansas City Hay Press Co.
Marion Mch., Fdy. & Supply Co.
National Supply Co.
Oil Well Supply Co.
Pattin Bros. Co.
Reid, Joseph, Gas Engine Co.
Spence Machine Co.
Titusville Iron Works Co.

Pumps—Acid Proof—
Duriron Company

Pumps—Boiler Feed—
Ajax Iron Works
Byron Jackson Pump Mfg. Co., Inc.
Fairbanks-Morse & Co.
Gardner Governor Co.
Goulds Pumps, Inc.
Oil Well Supply Co.
Smith Separator Co.

Pumps—Centrifugal—
American Wells Works
Byron Jackson Pump Mfg. Co., Inc.
Fairbanks-Morse & Co.
Goulds Pumps, Inc.
Smith Separator Co.
Worthington Pump & Machinery Corp.

Pumps—Direct Driven—
Bessemer Gas Engine Co.
Smith Separator Co.

Pumps—Electric—
Prescott Co.
Smith Separator Co.

Pumps—Fuel Oil Service—
Blackmer Pump Co.
Goulds Pumps, Inc.
Northern Pipe Apparatus Co.
Smith Separator Co.

Pumps—Fuel Oil Transfer—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co., Inc.

Pumps—Gasoline and Oil for Filling Stations—
Gilbert & Barker Mfg. Co.

Pumps—Gear Driven—
Gasc Pump & Burner Mfg. Co.
Lucey Mfg. Corp.
Prescott Co.
Smith Separator Co.

Pumps—Hot Oil—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co., Inc.
Goulds Pumps, Inc.
Smith Separator Co.

Pumps—Pipe Line—
Byron Jackson Pump Mfg. Co., Inc.
Frick-Reid Supply Co.
Gardner Governor Co.
Gasc Pump & Burner Mfg. Co.
Goulds Pumps, Inc.
National Transit Pump & Machine Co.
Prescott Co.
Worthington Pump & Machinery Corp.

Pumps—Portable—
Gasc Pump & Burner Mfg. Co.

Pumps—Power—
Fairbanks-Morse & Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Goulds Pumps, Inc.
Myers, F. E., Bro. & Co.
National Transit Pump & Machine Co.
Prescott Co.
Smith Separator Co.
Waukesha Motor Co.

Pumps—Refinery—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co., Inc.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Goulds Pumps, Inc.
National Transit Pump & Machine Co.
Northern Fire Apparatus Co.
Smith Separator Co.

Pumps—Rotary—
Blackmer Pump Co.
Goulds Pumps, Inc.
Northern Fire Apparatus Co.
Roots, P. H. & F. M., Co.

Pumps—Sand—
Bridgeport Machine Co.
Larkin & Co.
Smith Separator Co.

Pumps—Slush—
Gardner Governor Co.

Pumps—Steam—
Fairbanks-Morse & Co.
Frick-Reid Supply Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Lucey Mfg. Corp.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Prescott Co.
Smith Separator Co.

Pumps—Suction—
Gaso Pump & Burner Mfg. Co.

Pumps—Vacuum—
Bessemer Gas Engine Co.
Chicago Pneumatic Tool Co.
Clark Brothers Co.
Gaso Pump & Burner Mfg. Co.
Miller Improved Gas Engine Co.
Roots, P. H. & F. M., Co.
Ross Heater & Mfg. Co., Inc.
Smith Separator Co.

Pumps—Water—
American Well Works
Byron Jackson Pump Mfg. Co., Inc.
Gaso Pump & Burner Mfg. Co.
Goulds Pumps, Inc.
Northern Fire Apparatus Co.
Prescott Co.
Smith Separator Co.

Pyrometers—
Brown Instrument Co.
Republic Flow Meters Co.

R

Ratchet Pipe Cutters—
Toledo Pipe Threading Machine Co.

Ratchet Pipe Threaders—
Nye Tool & Machine Works
Toledo Pipe Threading Machine Co.

Ratchet Reamers—
Nye Tool & Machine Works

Ratchet Stocks and Dies—
Nye Tool & Machine Works
Toledo Pipe Threading Machine Co.

Receiving Boxes—
Reid, Joseph, Gas Engine Co.

Recorders—Differential Pressure—
Equitable Meter & Mfg. Co.
Metric Metal Works
Pittsburgh Meter Co.

Refinery Equipment—
American Radiator Co.
Blaw-Knox Co.
Braun, C. F., & Co.
Carbondale Machine Co.
Chicago Bridge & Iron Works
Graver Corp.
Griscom-Russell Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
Newton Process Mfg. Co.
Petroleum Appliance Co.
Petroleum Iron Works Co.
Power Piping Co.
Power Specialty Co.
Reid, Joseph, Gas Engine Co.
Ross Heater & Mfg. Co., Inc.
Ross-Meehan Foundries
Smith, A. O., Corp.
Smith Separator Co.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.
United Iron Works, Inc.
Universal Oil Products Co.
Vogt, Henry, Machine Co.
Walsh & Weidner Boiler Co.
Westcott & Greis
Widdell Engineering Co.

Refractories—Furnace, Stills and Baffles—
National Gas Products Co.

Refrigerating Machinery—
Carbondale Machine Co.
United Iron Works, Inc.
Vogt, Henry, Machine Co.

Regulators—
Fisher Governor Co.
Gilfillan Machine Works
Smith Separator Co.

Regulators—Gas—
Chaplin-Fulton Mfg. Co.
Davis, G. M., Regulator Co.
Equitable Meter & Mfg. Co.
Fisher Governor Co.
Metric Metal Works
National Gas Products Co.
Smith Separator Co.

Rental Service—
Bridgeport Machine Co.

Reversible Clutches—
Bessemer Gas Engine Co.

Rig Irons—
International Supply Co.
Lucey Mfg. Corp.
National Supply Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.

Rigs—Drilling, All Steel—
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Rigs—Portable Drilling—
National Supply Co.
National Turnbuckle Derrick Co.
Star Drilling Machine Co.

Rod Guides—
Meier, E. C., Lubricating Co.

Rods—Gauge—
Missouri Wood Working Co.

Rods—Polish—
Jones, S. M., Co.

Rods—Pull—
Axelson Machine Co.
Columbus Sucker Rod Co.
Jones, S. M., Co.
Sheffield Steel Corp.

Rods—Sucker—
Axelson Machine Co.
Columbus Sucker Rod Co.
D. & B. Pump & Supply Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
National Supply Co.
Oil Well Supply Co.
Republic Supply Co.
Sheffield Steel Corp.

Rods—Valve—
Jones, S. M., Co.

Roofing—Asbestos—
Johns-Manville, Inc.

Roofing—Galvanized Iron—
American Rolling Mill Co.

Rope Socket Metal—
Eagle-Picher Lead Co.

Rope—Manila—
Ajax Rope Co., Inc.
Bovaird Supply Co.
Republic Supply Co.

Rope—Wire—
Ajax Rope Co., Inc.
Bovaird Supply Co.
Bridgeport Machine Co.
Broderick & Bascom Rope Co.
International Supply Co.
Jarecki Mfg. Co.
Wickwire-Spencer Steel Corp.
Leschen, A., & Sons, Rope Co.
Williamsport Wire Rope Co.

Rotary Bit Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

Rotary Drilling Equipment—
Emsco Derrick & Equip. Co.
Frick-Reid Supply Co.
International Derrick & Equipment Co.
Link-Belt Co.
Lucey Mfg. Co.
National Supply Co.
Oil Well Supply Co.
Republic Supply Co.
Titusville Iron Works Co.

Rotary Lines (See Rope—Wire)—

Rotary Post—
Reed Roller Bit Co.

Rotary Tool Joints—
Bartlesville Supply Co.
Hughes Tool Co.

Rust Preventatives—
Dearborn Chemical Co.
Eagle-Picher Lead Co.

S

Sand Lines—Manila—
Ajax Rope Co., Inc.
Plymouth Cordage Co.

Sand Lines—Wire—
Ajax Rope Co., Inc.
Broderick & Bascom Rope Co.
Hazard Mfg. Co.
Wickwire-Spencer Steel Corp.

Screens—Oil Well—
Layne & Bowler Co.

Screens—Water Well—
Layne & Bowler Co.

Screws Temper—
Burns Tool Co.

Securities—Oil—
Pforzheimer, Carl H., & Co.

Separators—Centrifugal—
Miller, Max B., & Co.

Separators—Gas and Oil—
Smith Separator Co.

Separators—Steam—
Vois Engineering Equipment Co.

Sheet Lead—Chemical and Antimonial—
Eagle-Picher Lead Co.

Sheets—Corrugated, Black and Galvanized—
American Rolling Mill Co.
American Sheet & Tin Plate Co.
Ryerson, Jos. T., & Son, Inc.
United Alloy Steel Corp.

Sheets—Iron—
American Rolling Mill Co.

Sheets—Steel—
American Rolling Mill Co.
American Sheet & Tin Plate Co.
Sheffield Steel Corp.
United Alloy Steel Corp.

Shingles—Asbestos—
Johns-Manville, Inc.

Siding—Galvanized Iron—
American Rolling Mill Co.

Sleeves—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Sleeves—Split—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Smoke Stacks—
Donovan Boiler Works

Snuffers—Fire—
Simplex Equipment Co.

Sockets—
Acme Fishing Tool Co.
Bridgeport Machine Co.
Spang & Co.

Sockets—Sucker Rod—
Guiberson Corp.

Sockets—Swivel—
Arbon, Paul & Co.

Sockets—Wire Rope—
Chicago Steel Foundry Co.

Soda Ash—
Mathieson Alkali Works, Inc.

Soda—Caustic—
Mathieson Alkali Works, Inc.

Solders—Bar and Wire—
Eagle-Picher Lead Co.
Hoyt Metal Co.

Spark Plugs—
Mosler Metal Products Corp.

Spears—
Acme Fishing Tool Co.
Brown Tool Co., Inc.

Sprockets—Power Transmission—
Ajax Iron Works
Chain Belt Co.

Stands—Vice—
Nye Tool & Machine Works

Steel—All Kinds—
Ryerson, Jos. T., & Son, Inc.

Steel—Alloy—
Central Steel Co.
Timken Roller Bearing Co.
United Alloy Steel Corp.

Steel—Bit—
Central Steel Co.
United Alloy Steel Corp.

Steel—Hot Rolled Strip—
Central Steel Co.

Steel—Special—
Andrews Steel Co.
Central Steel Co.
United Alloy Steel Corp.

Steel Fabricators—Structural—
Austin Co.
Braden Co.
Graver Corp.
International Derrick & Equipment Co.

Steel Pitmans—
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Steel Plate Construction—
Chicago Bridge & Iron Works
Graver Corp.
Kaw Steel Construction Co.
Pennsylvania Engineering Works
Petroleum Iron Works Co.
Vogt, Henry, Machine Co.

Steel Wheel and Tug Rims—
International Derrick & Equipment Co.

Still Insulation—
Celite Products Co.

Stills—
Blaw-Knox Co.
Graver Corp.
Kaw Steel Construction Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
Newton Process Mfg. Co.
Petroleum Iron Works Co.
Smith, A. O., Corp.
Vogt, Henry, Machine Co.
Widdell Engineering Co.

Stocks and Dies—
Borden Co.
Nye Tool & Machine Works
Toledo Pipe Threading Machine Co.

Stuffing Boxes—
Axelson Machine Co.
Kansas City Hay Press Co.

Sulphuric Acid—
Eagle-Picher Lead Co.

Superheaters—Steam—
Power Plant Equipment Co.

Swabs—
Arbon, Paul, & Co.
Burt Corporation
Guiberson Corp.
Simplex Equipment Co.

Swedge Nipples—
Dresser, S. R., Mfg. Co.
Harrisburg Pipe & Pipe Bending Co.

Swing Line Equipment—
Brooks Engineering Corp.

Swivels—
Layne & Bowler Co.
Lucey Mfg. Corp.
Titusville Iron Works Co.

T

Tachometers—
Brown Instrument Co.

Tank Equipment—
Brooks Engineering Corp.
Oil Conservation Engineering Co.

Tank Insulation—
Celite Products Co.

Tanks—Bolted—
Butler Mfg. Co.
Columbian Steel Tank Co.
Maloney Tank Mfg. Co.
Parkersburg Rig & Reel Co.

Tanks—Bulk Station—
Butler Mfg. Co.
Graver Corp.

Tanks—Cylindrical—
Graver Corp.
Petroleum Iron Works Co.

Tanks—Elevated Steel—
Chicago Bridge & Iron Works
Graver Corp.

Tanks—Field Storage—
American Car & Foundry Co.
Chicago Bridge & Iron Works
Donovan Boiler Works
Graver Corp.
Kaw Steel Construction Co.
Kewanee Boiler Co.
Maloney Tank Mfg. Co.
Petroleum Iron Works Co.
Pittsburgh-Des Moines Steel Co.
Riter-Conley Co.
United Iron Works, Inc.

Tanks—Horizontal Storage—
Graver Corp.
Kaw Steel Construction Co.
Maloney Tank Mfg. Co.

Tanks—Run Down—
Chicago Bridge & Iron Works
Donovan Boiler Works
Graver Corp.
Kaw Steel Construction Co.
Newton Process Mfg. Co.

Tanks—Truck—
Butler Mfg. Co.
Columbian Steel Tank Co.

Tanks—Underground—
Butler Mfg. Co.
Gilbert & Barker Mfg. Co.
Graver Corp.
Kewanee Boiler Co.
Pittsburgh-Des Moines Steel Co.

Tanks—Welded—
Chicago Bridge & Iron Works
Graver Corp.
Pennsylvania Engineering Works

Taper Taps—
Hughes Tool Co.

Tapes—Measuring for Oil Gauging—
Lufkin Rule Co.
States Engineering Co.

Thermometers—Indicating and Recording—
American Shaeffer & Budenberg Corp.
Bristol Co.
Brown Instrument Co.
Foxboro Co., Inc.

Thermometers—Resistance—
Brown Instrument Co.

Threading Machines—
Bignall & Keeler Machine Wks.
Cox & Sons Co., The
Landis Machine Co.

Thread Protectors—
Spang & Co.

Tires—Automobile—
Continental Supply Co.

Tires—Pneumatic & Solid—
Kelly-Springfield Tire Co.

Tires—Truck—
Kelly-Springfield Tire Co.

Tongs—
Bridgeport Machine Co.
Wilson Oil Tools Corp.

Tongs—Back Up—
Williams, J. H., & Co.

Tongs—Break Out—
Reed Roller Bit Co.
Williams, J. H., & Co.

Tongs—Casing—
Dunn Mfg. Co.
Guiberson Corp.

Tongs—Chain Pipe—
Armstrong Bros. Tool Co.
Williams, J. H., & Co.

Tongs—Pipe—
National Transit Pump & Machine Co.

Tongs—Rotary—
Dunn Mfg. Co.

Tongs—Tool Joint—
Guiberson Corp.
Hughes Tool Co.
Reed Roller Bit Co.

Tongs—Tubing—
Dunn Mfg. Co.

Tool Chests—Pipe—
Nye Tool & Machine Works

Tool Joints—
Bridgeport Machine Co.
Federal Supply Co.
Hughes Tool Co.
Lucey Mfg. Corp.
Oil Well Supply Co.
Regan Forge & Engineering Co.

Torches—
Oxweld Acetylene Co.

Towers—
Graver Corp.

Tractors—
Cleveland Tractor Co.
International Harvester Co. of America.

Trailers—
Spencer Trailer Co.

Transmission Belt—Rubber—
Goodrich, B. F. Rubber Co.
United States Rubber Co.

Transmission Lining—
Stanley Belting Corp.

Traveling Block—
Lucey Mfg. Corp.
Regan Forge & Engineering Co.
Wright Mfg. Co.

Trenchers—Vertical Boom—
Barber-Greene Co.

Trucks—Motor—
Ford Motor Co.
General Motors Truck Co.
Graham Brothers
International Harvester Co. of America

Tubes—Boiler, Charcoal Iron—
Byers, A. M., Co.
Reading Iron Co.

Tubes—Boiler Steel—
Continental Supply Co.
National Tube Co.
Ryerson, Jos. T., & Sons., Inc.

Tubing—
Babcock & Wilcox Tube Co.
Byers, A. M., Co.
Central Tube Co.
Continental Supply Co.
National Tube Co.
Pittsburgh Steel Products Co.
Reading Iron Co.
Republic Iron & Steel Co.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.
Superior Tube Co.
Wheeling Steel Corp.

Tubing Catchers—
Dunn Mfg. Co.
Guiberson Corp.

Tubing Protectors (See Rod Guides)—

Tubular Goods—
Babcock & Wilcox Tube Co.
Central Tube Co.
Continental Supply Co.
Oil Well Supply Co.
Pittsburgh Steel Products Co.
Republic Iron & Steel Co.
Spang, Chalfant & Co., Inc.
Wheeling Steel Corp.

Tubular Goods—Wrought Iron—
Byers, A. M., Co.
Reading Iron Co.

Turbines for Lighting Equipment
Lucey Mfg. Corp.
Westinghouse Electric & Mfg. Co.

U

Undercreamer Body Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

Undercreamers—
Bridgeport Machine Co.
Brown Tool Co., Inc.
Guiberson Corp.
Wilson Oil Tools Corp.

Unions—
Central Forging Co.
Dart, B. M., Mfg. Co.
Jefferson Union Co.

V

Valuations—
American Appraisal Co.

Valves—Blow-Off—
Homestead Valve Mfg. Co.
Merco Nordstrom Valve Co.

Valves—Brass & Bronze—
Homestead Valve Mfg. Co.
Lunkenheimer Co.
Reading Steel Casting Co.
Walworth Co.

Valves—Cast Steel—
Chapman Valve Mfg. Co.
Homestead Valve Mfg. Co.
Walworth Co.

Valves—Check—
Gaso Pump & Burner Mfg. Co.
Lunkenheimer Co.
Walworth Co.

Valves—Drop Forged Steel—
Edward Valve & Mfg. Co.
Vogt, Henry, Machine Co.

Valves—Gate—High and Low Pressure—
Chapman Valve & Mfg. Co.
Crane Co.
Darling Valve & Mfg. Co.
Kennedy Valve Mfg. Co.
Kerotest Mfg. Co.
Ludlow Valve Mfg. Co.
Lunkenheimer Co.
Murray Tool & Supply Co.
Powell, Wm., Co.
Walworth Co.

Valves—Iron—
Chapman Valve Mfg. Co.
Lunkenheimer Co.
Merco Nordstrom Valve Co.
Reading Steel Casting Co.
Walworth Co.

Valves—Metal Pump—
Durabla Mfg. Co.

Valves—Pump—
Garlock Packing Co.
United States Rubber Co.

Valves—Relief—Supersensitive—
Davis, G. M., Regulator Co.

Valves—Steel—
Chapman Valve Mfg. Co.
Edward Valve Mfg. Co.
Kerotest Mfg. Co.
Lunkenheimer Co.
Metric Metal Works
Powell, Wm., Co.
Reading Steel Casting Co.
Walworth Co.

Valves—Tank Vent—
Brooks Engineering Corp.
Oil Conservation Engineering Co.

Valves—Working Barrel—
Atlas Ball Co.
Axelson Machine Co.
D&B Pump & Supply Co.
Hough, Charles N., Mfg. Co.
Northrup Equipment Co.
Oil Well Supply Co.

Varnishes—
Arco Company, The
Detroit Graphite Co.
Sherwin-Williams Co.

Ventilators—Roof—
Burt Mfg. Co.

Vises—Bench—
Nye Tool & Machine Works

Vises—Pipe—
Nye Tool & Machine Works

Vises—Post—
Nye Tool & Machine Works

W

Wagons—Truss Wheel—
Athey Truss Wheel Co.

Walking Beams—Steel—
Emsco Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Water Cooling Systems—
Power Plant Equipment Co.

Waterproofings—Concrete—
Master Builders Co.

Waterproofing Materials—
Celite Products Co.

Water Softeners and Filters—
Butler Mfg. Co.
Graver Corp.

Wax—
Barnsdall Refining Co.
Gulf Refining Co.
Pure Oil Co.

Weight Indicators—
Hughes Tool Co.

Welding Accessories—Electric—
Wilson Welder & Metals Co.

Welding and Cutting Apparatus—
Oxweld Acetylene Co.

Welding Machines—Electric—
Wilson Welder & Metals Co.

Welding Supplies—
Oxweld Acetylene Co.

Welding Wire—
Frick-Reid Supply Co.
Oxweld Acetylene Co.
Wilson Welder & Metals Co.

Well Shooting—
Eastern Torpedo Co.
Kinley, M. M.
Zero Hour Torpedo Co.

Wheels—Pipe Cutter—
Nye Tool & Machine Works

Winches—
Braden Co.
Brooks Engineering Co.
Oil Conservation Engineering Co.

Wire Lines (See Cables—Steel)—

Wood Patterns and Models—
Gaso Pump & Burner Mfg. Co.

Working Barrels—
Axelson Machine Co.
D&B Pump & Supply Co.
D. & N. Specialty Co.
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hough, Charles N., Mfg. Co.
McGregor, Working Barrel Co.
Norris, W. C.
Northrup Equipment Co.
Oil Well Supply Co.

Wrenches—Closet Spuds—
Nye Tool & Machine Works

Wrenches—Drop Forged—
Williams, J. H., & Co.

Wrenches—Pipe—
Trimont Mfg. Co.
Walworth Co.

Wrenches—Ratchet—
Dresser, S. R., Mfg. Co.
Nye Tool & Machine Works

Z

Zinc Oxide—
Eagle-Picher Lead Co.

Oklahoma-Kansas and Eastern Pipeline Report

OKLAHOMA-KANSAS

Pipeline Statement for September Runs

Company	Month Bbls.	Daily Av. Bbls.
*Prairie Pipe Line Co.	3,990,000	133,000
Gulf Pipe Line Co.	1,198,258	39,942
Texas Pipe Line Co.	590,846	19,695
Magnolia Pet. Co.	1,047,406	34,914
Empire Pipe Line Co.	682,783	22,759
Cosden Pipe Line Co.	840,847	28,028
*Sinclair Pipe Line Co.	1,979,470	65,981
*Other lines	7,590,000	253,000
Total September	17,919,610	597,319
Total August	18,240,610	591,632
Difference	321,000	5,687

Shipments

	Month	Daily Av.
Prairie Pipe Line Co.	3,906,979	130,233
Gulf Pipe Line Co.	1,246,598	41,553
Texas Pipe Line Co.	661,971	22,066
Magnolia Petroleum Co.	1,161,487	38,716
Empire Pipe Line Co.	855,063	28,505
Cosden Pipe Line Co.	793,155	26,438
†Sinclair Pipe Line Co.	2,422,201	80,740
*Other lines	7,500,000	250,000
Total September	18,547,452	618,241
Total August	19,907,618	642,181
Difference	1,360,166	23,940

Stocks

	Bbls.
*Prairie Oil and Gas Co.	27,500,000
*Prairie Pipe Line Co.	2,000,000
Gulf P. L. & Gypsy Oil Co.	6,564,128
The Texas Company	2,973,762
Magnolia Petroleum Co.	3,772,459
Empire Pipe Line Co.	2,252,342
Mid-Continent Petroleum Corp.	1,969,349
*Sinclair Crude Oil Purchasing Co.	17,300,000
Carter Oil Co.	12,703,047
*Other lines	9,000,000
Total September	86,035,087
Total August	86,700,316
Difference	665,229

*Estimated. †Includes, also Texas and Wyoming crude oil.

Note—Stocks do not include approximately 4,200,000 bbls. of crude oil held in storage on private tank farms and leases.

EASTERN PIPE LINES

Runs From Wells

In the following table will be found the regular receipts from wells by various pipelines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for August and September:

	Aug., '26	Sept., '26
Nat. Transit	161,323.78	157,017.84
S. W. Pa. P. L.	96,367.93	92,876.04
Eureka P. L.	331,142.94	394,772.87
Buckeye P. L. (Macksburg)	307,707.87	305,555.59
Buckeye P. L. (Cleveland)	11,268.78	11,566.59
Buckeye P. L. (Lima, etc.)	138,103.04	126,909.34
Indiana P. L.	10,825.64	10,626.42
Cumberland P. L.	378,950.07	390,905.79
N. Y. Transit	20,228.51	23,358.42
Tidewater P. L.	166,918.60	172,611.23
Pure Oil Co.	168,350.74	170,962.58
Emery P. L.	53,942.07	53,805.20
Indian Ref.	103,137.03	100,635.27
Paragon Dev.	22,043.09	23,057.77
Pittsburgh P. L.	5,960.11	5,464.90
Total	1,916,270.20	1,939,117.25
Daily average	61,815.17	64,639.01

Note: Indian Refining Co. also reported other receipts of 246,044.19 bbls. Paragon Refining Co. had other receipts of 179,054.52 bbls. Paragon Development had other receipts of 1,390.43 bbls. Pure Oil had other receipts of 69,785.24 bbls.

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipelines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for August and September:

	Aug., '26	Sept., '26
Nat. Transit	419,519.29	507,316.73
S. W. Pa. P. L.	407,494.63	400,138.59
Eureka P. L.	206,253.08	188,937.77
Buckeye P. L. (Macksburg)	139,988.47	165,992.88
Buckeye P. L. (Cleveland)	727.93	970.81
Buckeye P. L. (Lima, etc.)	787,040.76	808,123.61
Indiana P. L.	996,002.96	962,598.39
Cumberland P. L.	149,487.18	205,156.32
Southern P. L.	2,461.03	.....
N. Y. Transit	437,982.40	362,111.95
Northern P. L.	199,543.86	186,027.12
Tidewater P. L.	130,278.71	127,787.67
Pure Oil Co.	219,867.81	224,110.08
Emery P. L.	56,844.78	58,646.08
Paragon Ref.	134,578.87	179,054.52
Indian Ref.	357,390.83	357,563.25
Paragon Dev.	18,580.37	25,256.09
Pittsburgh P. L.	5,737.74	6,769.43
Total	4,709,789.43	4,767,559.08
Daily average	151,928.69	158,915.30

Gross Stocks

The gross stocks held by various pipelines in the oil producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of August and September were as follows:

	Aug., '26	Sept., '26
Nat. Transit	1,095,592.26	1,071,850.94
S. W. Pa. P. L.	644,407.20	660,478.34
Eureka P. L.	1,426,004.84	1,326,018.38
Buckeye P. L. (Macksburg)	461,200.92	468,138.83
Buckeye P. L. (Cleveland)	93,451.86	107,440.32
Buckeye P. L. (Lima etc.)	2,586,923.06	2,527,039.47
Indiana P. L.	575,785.80	606,041.93
Cumberland P. L.	601,941.96	548,508.14
Southern P. L.	404,780.18	413,586.42
N. Y. Transit	748,135.27	698,391.18
Northern P. L.	385,641.31	395,811.54
Pure Oil Co.	429,758.51	442,866.35
Emery P. L.	34,677.04	20,449.37
Paragon Ref.	55,343.93	37,672.28
Indian Ref.	109,296.55	96,581.46
Paragon Dev.	2,505.05	8,676.21
Pittsburgh P. L.	4,541.24	3,282.93
Total	9,668,946.98	9,433,781.99
Decrease	65,789.55	235,214.99

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipelines at the close of August and September showing the gross stocks of the above fields:

	Aug., '26	Sept., '26
Pennsylvania	4,021,829.40	3,910,404.63
Lima	826,740.17	840,022.93
Kentucky	1,185,429.48	1,151,388.70
Mid-Continent	3,593,693.56	3,485,687.95
Illinois	41,254.37	46,227.78
Total	9,668,946.98	9,433,731.99

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1923	1924	1925	1926
January	75,790	62,638	56,831	56,630
February	71,092	62,023	60,606	60,394
March	76,592	68,722	60,575	61,644
April	75,614	71,058	63,062	63,019
May	77,365	63,942	59,217	60,580
June	77,593	63,230	61,270	64,131
July	71,879	64,208	62,639	63,206
August	76,910	59,942	59,686	61,816
September	72,358	62,023	62,510	64,639
October	76,256	64,976	60,995	.....
November	70,762	56,282	59,350	.....
December	69,271	56,814	57,974	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1923	1924	1925	1926
January	171,067	145,518	157,889	156,056
February	164,219	148,732	160,863	159,488
March	185,487	147,098	154,591	150,239
April	170,751	147,611	161,429	152,371
May	177,102	134,997	146,995	160,988
June	173,598	143,010	149,467	160,257
July	168,330	124,187	161,338	160,945
August	142,776	123,120	161,730	151,929
September	137,266	127,325	156,719	158,915
October	134,597	122,170	145,388	.....
November	131,426	124,400	143,582	.....
December	139,909	151,392	160,162	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields including oil received from other lines, at the close of each month for the past three years:

	1924	1925	1926
January	12,907,202	11,353,276	9,859,17
February	11,844,068	11,192,924	9,579,35
March	10,906,762	11,158,297	9,438,29
April	10,922,742	11,062,082	9,805,85
May	11,325,309	11,207,562	9,531,79
June	11,544,204	11,093,796	9,585,96
July	12,062,361	11,067,453	9,724,68
August	12,221,676	10,974,481	9,668,94
September	12,206,836	10,781,753	9,433,73
October	12,664,061	11,086,850	.....
November	12,268,530	11,068,158	.....
December	11,583,680	10,458,445	.....

Franklin Pipe Line Co.

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and not counted in the stocks and averages reported above:

	Recpts.	Shipmts.	Stocks
1925—			
August	3,216.97	1,577.39	15,189.2
September	2,929.99	5,352.05	10,767.1
October	2,869.75	1,499.34	12,137.5
November	2,759.66	2,571.32	12,283.4
December	2,661.87	3,441.67	11,503.6
1926—			
January	2,990.16	1,478.35	13,015.4
February	2,580.23	2,776.19	12,819.4
March	2,754.62	1,732.77	13,841.3
April	3,137.40	4,519.68	12,458.9
May	2,933.29	2,096.35	13,295.9
June	3,217.62	1,655.15	14,858.4
July	3,025.86	4,075.11	13,809.1
August	2,886.59	3,121.21	14,574.5
September	2,788.18	3,373.06	13,985.6

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Cross stocks Oct. 1	2,426,711.6
Runs from wells	661,085.0
Other receipts	480,477.9
Regular deliveries	474,269.0
Other deliveries	573,311.4

The amount of Illinois oil run by the Tidewater Pipe Co. in September was 27,713.63 bbls. and deliveries were 41,813.97 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

1925—		
September	706,434.87	510,697.61
October	706,532.00	633,682.32
November	664,556.30	488,449.19
December	665,086.99	578,938.47
1926—		
January	665,243.62	516,085.76
February	632,611.39	506,310.51
March	753,300.74	524,625.95
April	610,957.04	487,604.00
May	682,416.67	498,456.90
June	693,102.34	558,054.94
July	713,490.66	490,092.32
August	701,795.92	566,766.59
September	688,798.66	516,082.06

The Tidewater Pipe Co., Ltd., also delivered in September, 130,420.32 bbls. of Oklahoma oil.

AVERAGE DAILY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF PORTS

Average bbls. per day—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: New Orleans Galveston	Port Arthur Baton Rouge	Sabine Pass	Tampa	Total	Total All Ports
June	24,533	11,000	22,800	34,467	15,167	107,967	.....	.....	.....	.....	.....	107,967
July	15,677	2,903	24,678	13,065	12,516	67,839	.....	.....	.....	645	645	68,484
August	14,839	10,289	24,871	17,742	17,677	85,518	.....	.....	.....	.....	.....	85,518
September	10,500	7,200	54,433	23,066	11,300	105,500	.....	.....	.....	.....	.....	105,500

AVERAGE DAILY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

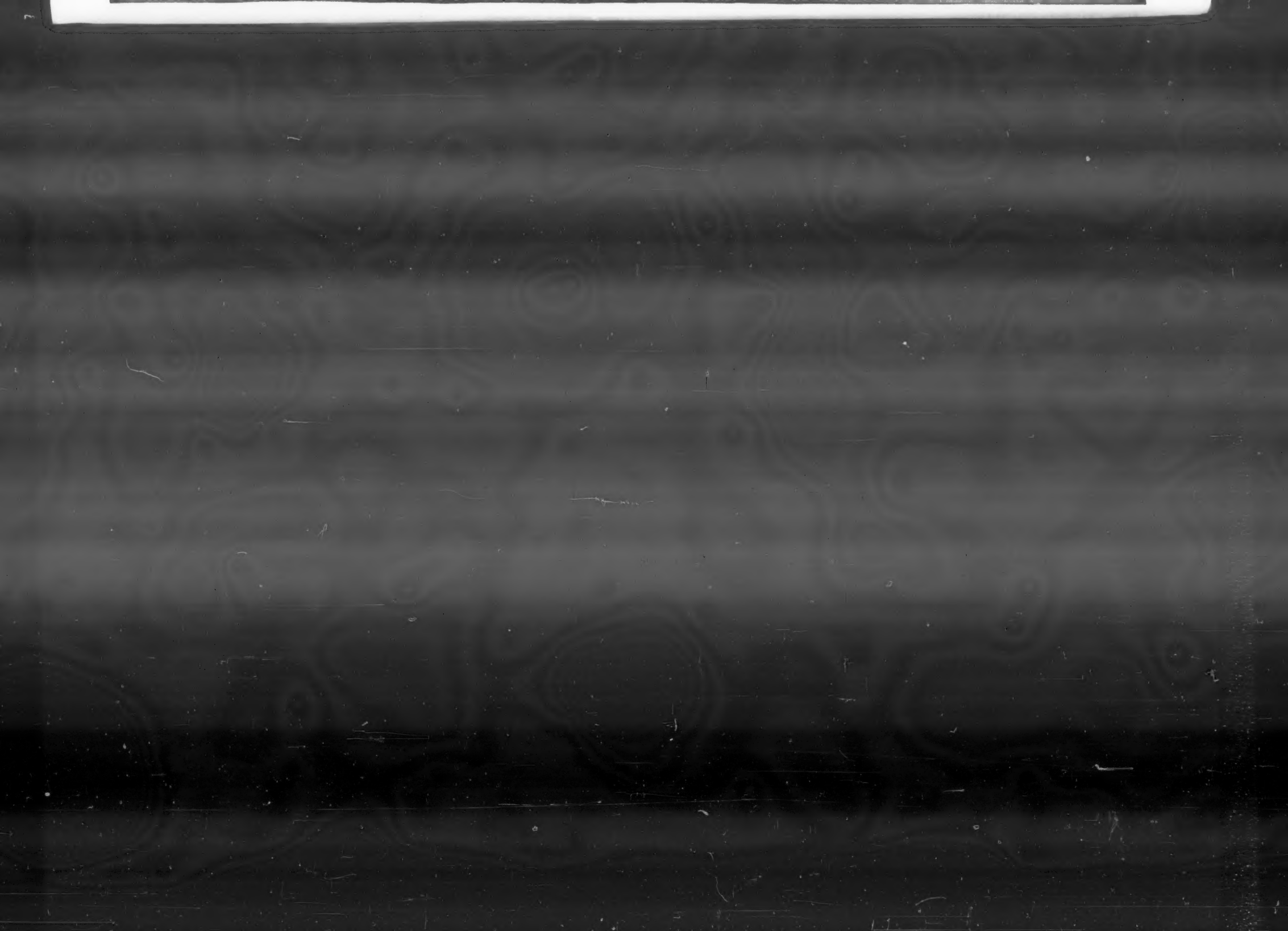
Average bbls. per day—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: New Orleans Galveston	Port Arthur Baton Rouge	Sabine Pass	Tampa	Total	Total All Ports
June	15,800	10,800	87,300	6,500	21,267	141,667	25,300	42,267	6,567	3,900	78,033	219,700
July	21,517	7,774	89,548	4,774	26,194	149,806	*13,226	†39,774	‡2,032	4,462	59,494	209,300
August	21,903	4,581	79,871	5,323	18,742	130,420	*19,516	†57,264	15,161	2,903	84,934	215,354
September	16,600	6,667	83,233	1,867	20,700	128,567	*9,500	†35,900	‡2,500	3,000	50,900	179,467

*Received at Galveston district. †Received at New Orleans and Baton Rouge. ‡Received at Port Arthur and Sabine Pass.

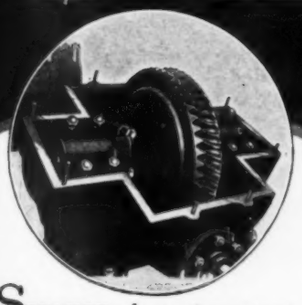
GROSS PRODUCTION OF THE UNITED STATES FOR 12 MONTHS

(IN BARRELS)

		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mountains	Eastern Fields	Total
October:	Month	20,015,076	14,921,199	11,196,511	3,477,146	6,409,381	1,871,889	3,294,990	3,248,000	64,534,093
	Daily average	645,648	481,329	361,178	112,166	206,751	60,383	106,500	104,774	3,081,743
November:	Month	19,095,907	14,590,980	10,650,087	3,321,760	5,927,955	1,758,882	3,088,121	2,992,000	61,325,692
	Daily average	636,530	486,366	355,003	107,397	197,599	58,629	102,937	99,753	2,044,190
December:	Month	19,249,711	14,123,843	10,930,455	3,308,816	6,047,883	1,763,966	3,187,164	3,086,900	61,698,743
	Daily average	620,959	455,608	352,595	106,736	195,093	56,903	102,812	99,552	1,990,363
January:	Month	19,069,563	13,674,813	11,049,715	3,250,536	5,489,604	1,726,390	3,136,280	3,014,000	60,410,901
	Daily average	615,147	441,123	356,442	104,856	177,084	55,690	104,396	97,226	1,948,741
February:	Month	17,163,963	12,392,016	9,943,232	2,877,812	4,756,836	1,584,184	3,778,605	2,931,000	54,427,648
	Daily average	612,999	442,572	355,115	102,779	169,887	56,578	99,236	104,678	1,978,844
March:	Month	18,825,786	14,312,886	11,014,238	3,324,887	5,115,837	1,889,663	3,161,250	3,249,000	61,003,547
	Daily average	608,283	461,706	355,298	107,577	165,027	60,957	101,976	108,032	1,967,866
April:	Month	18,091,771	14,468,190	10,799,760	3,330,120	5,127,510	1,959,570	3,231,404	3,183,000	60,191,325
	Daily average	603,059	482,273	359,992	111,004	170,917	65,319	104,239	106,100	2,006,377
May:	Month	18,667,144	14,507,008	11,940,797	3,516,649	5,482,939	2,221,933	3,459,439	3,317,000	63,122,965
	Daily average	602,166	467,968	385,187	113,440	176,879	71,998	111,596	107,000	2,036,224
June:	Month	18,269,417	14,073,510	11,782,550	3,366,450	5,064,760	2,305,489	3,437,905	3,365,000	61,666,073
	Daily average	608,981	469,117	392,785	112,215	168,822	76,816	114,597	112,167	2,053,303
July:	Month	18,743,199	14,657,483	13,983,759	3,613,267	5,019,892	2,174,813	3,336,664	3,424,000	64,952,076
	Daily average	604,619	472,822	451,089	116,557	161,932	70,123	107,634	110,452	2,095,229
August:	Month	18,765,060	14,615,236	17,073,436	3,712,436	4,878,191	2,190,739	3,457,687	3,424,000	68,116,805
	Daily average	605,325	471,459	550,756	119,756	157,361	73,895	111,538	110,452	2,197,639
September:	Month	18,104,954	14,436,510	17,560,800	3,480,060	4,603,230	2,079,840	3,141,123	3,330,000	66,736,517
	Daily average	603,498	481,217	585,360	116,002	153,441	69,328	104,704	111,000	2,224,550
	Total 12 months	224,061,571	170,773,673	147,936,340	40,489,930	63,923,918	23,436,295	38,810,682	38,662,900	748,036,314
	Daily average	613,867	467,873	405,378	110,931	175,151	64,209	106,331	105,929	2,049,681



SERVICE

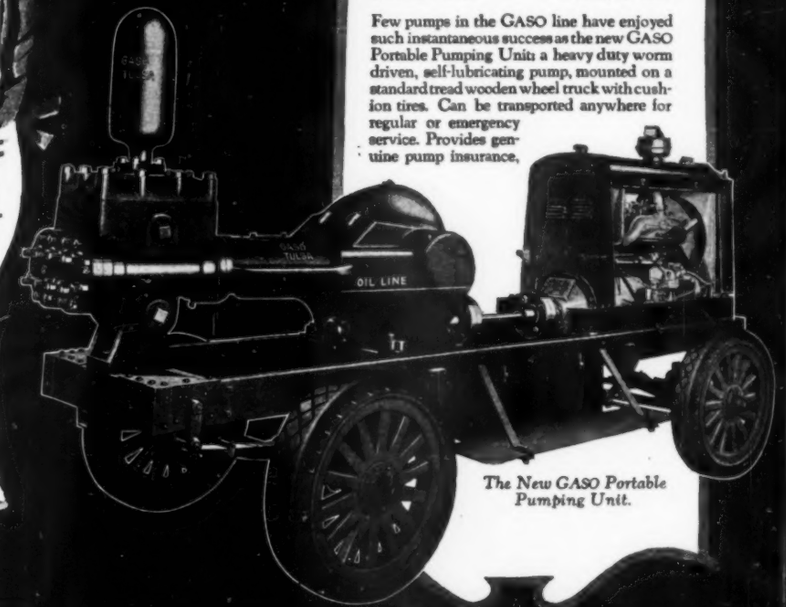


SERVICE, always important, becomes doubly important when urgently needed. It is then that our location, in the heart of the oil industry, performs its most important function. Pumps and parts sent from Tulsa are on the job and working by the time shipments from other points get under way.

Combine this advantage with GASO quality and you have a simple explanation of GASO leadership.

GASO PUMP & BURNER MFG. CO. *Tulsa, Okla.*

Few pumps in the GASO line have enjoyed such instantaneous success as the new GASO Portable Pumping Unit: a heavy duty worm driven, self-lubricating pump, mounted on a standard tread wooden wheel truck with cushion tires. Can be transported anywhere for regular or emergency service. Provides genuine pump insurance.



The New GASO Portable Pumping Unit.

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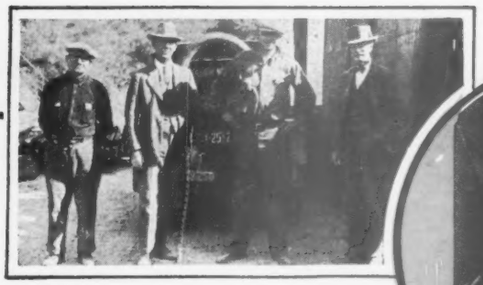

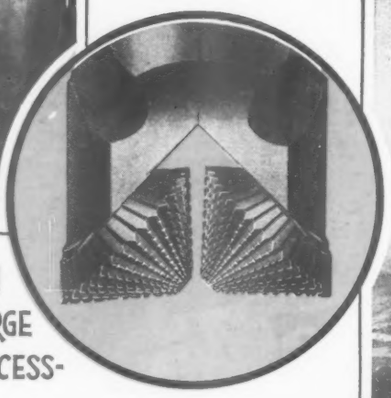

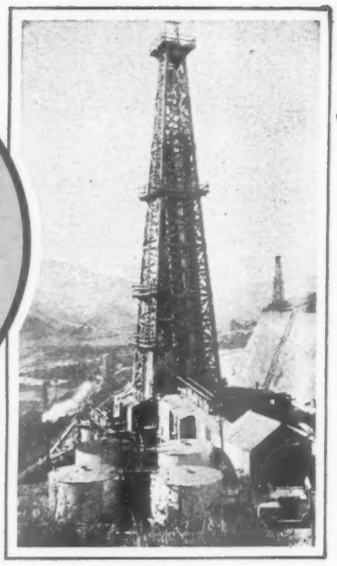

ALL HARD FORMATIONS IN THE WORLD'S DEEPEST LARGE PRODUCING WELL WERE SUCCESSFULLY DRILLED WITH

HUGHES ROCK BITS

The photograph on the right shows the Associated Oil Company's Lloyd No. 33 well in the Ventura field of California; recognized as the world's deepest large producer.

Hughes 7⅞" Rock Bits were used exclusively in drilling all hard formations; making approximately 1400 feet of hole below 4800 feet.

Hughes Tool Joints were used exclusively, the well also being equipped with an 8⅝" Hughes Drilling Valve.

The photograph on the left shows Amos Warren, superintendent of the Associated Oil Company's Ventura property (second from the left) and "Slim" Hampton, drilling superintendent for the Amazon Drilling Corp., (second from the right). The Amazon Drilling Corp. drilled this well and all others for the Associated Oil Company in this territory.

∫

HUGHES ROCK BIT MATERIAL

Stocked by Supply Stores, Everywhere

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